

American Fruit Grower

MAY • 1961

25 CENTS

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PACKING

MARKETING

Their Peaches
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The Fruit Areas of
America—FLORIDA

The Big Seven in
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Public Relations Are the Grower's Responsibility—See Page 11



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Cover photograph showing blueberries is by J. C. Allen and Son. Recommended varieties of blueberries for the Northeast are listed on page 18.

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LETTERS TO THE EDITOR

Fruit Growers' Advice to Clair Walters

AMERICAN FRUIT GROWER is pleased to publish some of the many letters received from growers offering helpful suggestions and advice to Clair Walters, Ohio school teacher who contemplates setting out an orchard and wonders whether 20 acres will support a family of four.

The article which presented Clair's problem, together with recommendations by horticultural experts, was entitled "What Would Be Your Answer," and appeared on page 12 of the March issue.—Ed.

Likes "Pick Your Own" System

Dear Editor:

Being a personal friend of Clair Walters, a fellow schoolteacher, and an orchardist, I'd like to offer a few observations in regard to your article about him in the March issue.

The roadside market on a good highway is extremely important, especially to the small operator. I think this has been my most serious handicap. I'm located in a small community with no highway frontage, right in the heart of the Amish country. By offering a good product at a modest price, we have built up a "pick your own" business. This has worked very well, because the Amish are basically frugal and honest.

I've no doubt as to Walters' ability to live on \$5000 a year. We, as teachers, have been living on less for several years. Clair is a young man with much interest and aptitude in the fruit growing business. Like most young men, he's probably shorter on capital than any other single item. He'd make an excellent junior partner for some established orchardist who would like to expand or ease up a little and let a younger man take up the slack.

Fredericksburg, Ohio

Paul C. Tope

Use Care in Choosing Location

Dear Editor:

I've just read your answer to Clair Walters about the possibility of starting a small fruit operation. I don't know the conditions in Ohio, but I do know what happened here on the West Coast. Many growers who thought they had a good location are finding themselves engulfed by suburbs and supermarkets. The resulting demand for schools has pushed the tax rate up until they have been forced to sell out. You cannot pay residential rates on farm land and make a go of it.

Then there's the unhappy subject of theft. Many city-bred children and some adults regard a fruit orchard as fair game: all those peaches and apples are irresistible. It is a difficult problem to control, as severe measures can cause antagonism among prospective customers.

I don't want to paint a black picture or discourage Walters. These are just points to keep in mind when he chooses his location.

Eugene, Ore.

Fred Hicks

Steer Clear of Plums

Dear Editor:

If Clair Walters really likes fruit growing and if he can afford to get a fruit farm started, then he ought to go ahead and try it. With a decent crop, he should be able to clear about \$1000 an acre.

I think an acre of prune plums would be too much. They are a very good fruit, but consumers don't seem to go for them like they do peaches. We sell both here at our orchard, but for every box of prunes we

can get rid of, we can sell a thousand boxes of peaches.

One thing I can't understand is why anybody thinks this fruit operation won't take Walters' full time or that there wouldn't be much to do in the winter. Growing large, top-quality fruit means heavy pruning and thinning. I'll bet that when his trees get good sized, Walters won't be able to get all his orchard pruned in the winter by himself, let alone 2 acres of canes. I'll also bet he couldn't thin all his fruit alone even if he worked steady at it all summer. Where will he find time to harvest those berries?

If he keeps his trees low enough for 8-foot ladders, he could sell a lot of fruit on a "pick your own" basis. Peaches are especially good for that. One advantage of "pick your own" is that the customer is happy with the fruit he picks himself, even though a lot of it would be considered culls if picked by the grower.

Naches, Wash.

W. D. Thompson

Beware of Too Much Machinery

Dear Editor:

Having developed a diversified fruit farm quite like Clair Walters', I believe I can offer some pertinent suggestions: the 16-acre project you have patterned is far too small as a logical unit of production, and he should not quit his teaching (and the certain annual income it brings) until the fruit farm is producing.

From my experience, weather hazards are a major limiting factor in fruit farm income. This is especially true with peaches. Today, labor is expensive, so I learned early to let my customers pick all my fruits in their own containers, thus eliminating packing and storage sheds, grading and washing machinery.

Beware of too much machinery in the small operation. Interest and depreciation can ruin you. So can location of the orchard and unfit soil. Supplemental irrigation should be weighed by Walters, to achieve larger crops.

Finally, I urge him to talk long and earnestly with his fruit growing neighbors. They are gold mines of information.

New Haven, Mo.

Guy Trail

Start Small and Grow

Dear Editor:

My son and I have a roadside stand and sell all our produce there from 20 acres of land. We make a good living, and our business is growing each year. But we didn't start with 20 acres—we began with only 5 acres and bought more.

One thing, you cannot depend on any set income, as it will vary greatly from season to season. We had 20,000 quarts of strawberries last year, and the year before we had 6000 from the same acreage. One acre of berries would supply the stand in an average year. The rest we sell on the field, and people come and pick their own. One Saturday this past season, they picked 1750 quarts in one day, and we sold our

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Putting Ideas to Work



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Division**

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Plants: Lakeland, Florida—Woodstock, Virginia

20,000 quarts without any refrigeration and lost hardly any berries.

It will take Walters, his wife and the children, and a lot more help seven days a week, 12 to 14 hours a day at times, to run things.

We're lucky here, for a lot of Jamaicans come to work on the tobacco plantations in this area. After they're through at the plantations at 5 p.m., they come over to work on our farm until dark, and they sure do the work for \$1 an hour.

Don't grow an acre of raspberries unless you have an enormous market for them. They are very perishable and hard to pick. My best berry pickers won't pick these piecework. They work well and fast, but at \$1.25 an hour, it costs me 15 cents a pint to get raspberries harvested. You have to pick them every day and sell them at once.

To sum it up, my answer would be that if he and his family want to work hard, put in long hours, and if they know how to run their orchard and stand, Walters can soon make as much in seven months as most workers make in a year. But remember: start small and grow.

Southwick, Mass. Harold T. Mason

Plan for Expansion

Dear Editor:

Clair Walters and his family are apt in time to be very frustrated if they limit their fruit farm and market to 20 acres. Certain essential costs would not be much greater for 50 or 100 acres than for 20. They should plan for expansion if and when their business becomes profitable.

On our farm we have developed a 100-acre orchard as our main source of income. Apples make up the greater part, but we have 10 acres of "pick your own" cherries and an acre or two of plums, which are harvested the same way. We have a refrigerated storage and two common storage buildings. A salesroom extends along one side of the storage.

We have found that "pick your own" strawberries fit in very well with the orchard, so we have about 30 acres in old and new berry beds. At one time we tried to grow the vegetables we sell at our market but now find we can get better quality by leaving the job to others who specialize.

Then, too, a farm market has certain disadvantages which many people would not like. Anyone who insists on 8- or 9-hour days and free weekends just doesn't fit in. Staunch churchgoers should shy away from this business.

Kenosha, Wis. H. E. Thompson

Yield Estimates Are Too High

Dear Editor:

I was interested in Clair Walters' letter and your article about him in the March issue. Having tried something similar, my experience should be helpful. The experts' words of caution were well taken, but I would magnify their warnings many times. In the first place, the figured yields were much too high. Only an expert with unlimited capital could hope to maintain these yields year after year. Such yields necessitate ideal growing conditions and irrigation. Crop failure due to winds, storms, frosts, unexpected disease or pest damage could result.

The estimated selling prices are also much too high. Perishable small fruits and peaches must be priced to sell quickly. There will be considerable loss from spoilage and further loss in reduced prices hoping to salvage something. Also, it may take several years for a newly opened roadside market to establish a satisfactory volume.

I think Walters would do well to retain his teaching position and ease into his objective gradually.

Bridgeton, N.J. Chas. O. Wisham

AMERICAN FRUIT GROWER



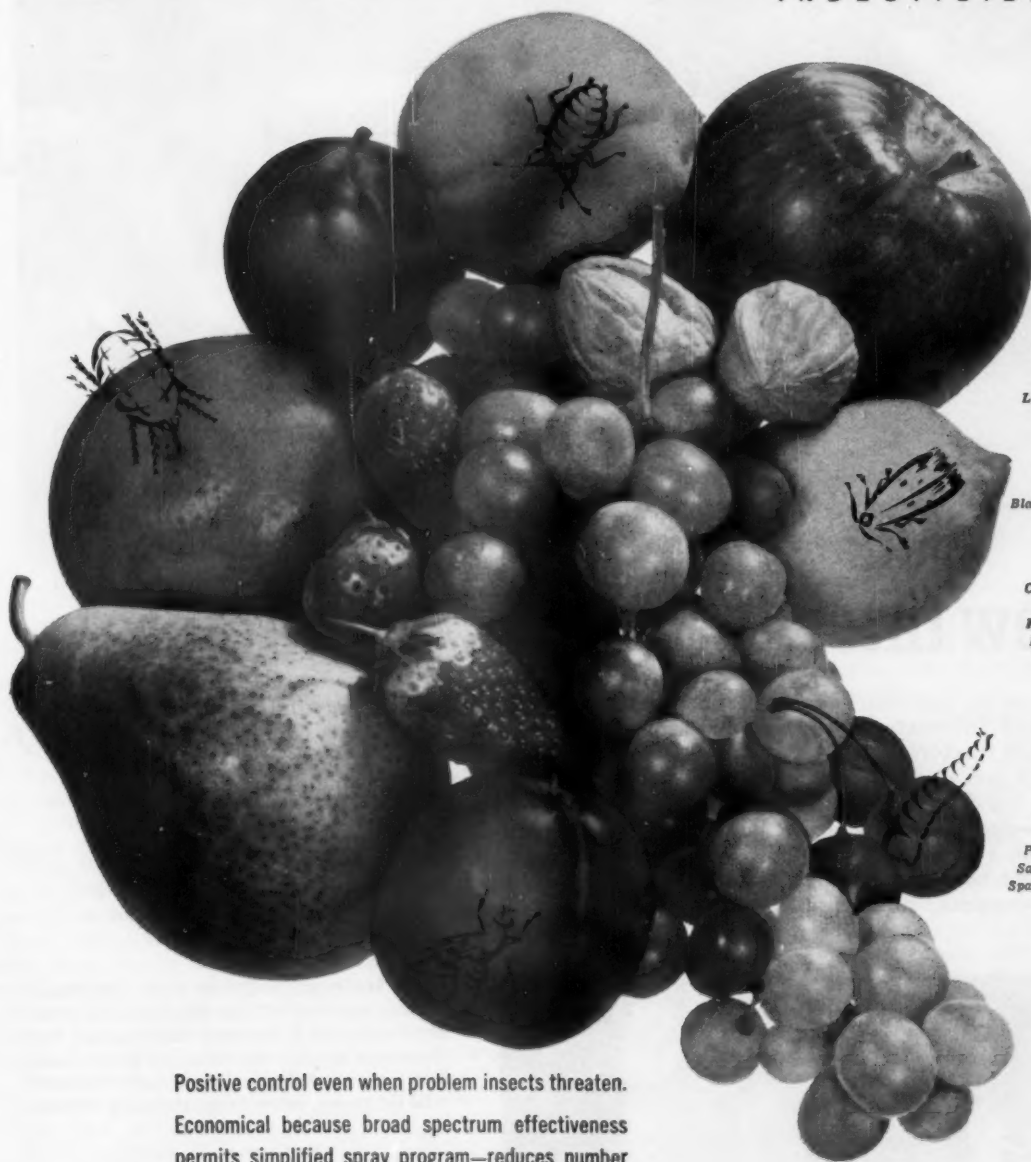
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Thistle aphids
Woolly apple aphids
Apple maggots
Black-headed fireworms
Cherry fruit flies
Codling moths
Cottony cushion scale crawlers
Cranberry fruitworms
Dried-fruit beetles
Forbes' scale crawlers
Fruit tree leaf rollers
Grape berry moths
Grape leaf folders
Leafhoppers
Mites
Clover mites
Cyclamen mites
European red mites
Pacific mites
Two-spotted mites
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New International 340 and 460 fruit-grower specials will be displayed by your International Harvester dealer soon! See these new money-makers. Put one to test. See for yourself that these new tractors will do more, save more than all others.



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Let's Not SELL OURSELVES SHORT

The migrant labor problem has created an unfavorable image of the horticultural industry in the mind of the public while the conscientious work of fruit growers in coping with labor problems over which they have no control has gone unnoticed. Why?

Myron Dowd, in his report to Michigan growers on the progress of Michigan Seasonal Farm Labor Committee, abstracted here, minces no words when he places responsibility for keeping the public properly informed squarely on the shoulders of every grower.

By **MYRON B. DOWD**

President, Michigan State Horticultural Society

AS fruit growers we have seen changes, and advancements, too, in the seasonal farm labor field. First we used local help and had no housing problems. In time we tried hoboes and floaters and had no housing problems.

Then, in the early 30's, USDA displaced share croppers in the South and these people found work on our farms. They brought their families with them and to cope with this we built camps and housing. Each year we have added improvements to our camps and to our housing facilities and will continue to do so.

The farm labor field is not new. We have been hiring help for years. What, then, is different?

Public attention is now focused on us as employers by people who are not interested in our business and don't realize the contributions we are making to the increased prosperity of our local communities. These people are trying to put us as growers in a bad light, as shown by the distorted presentation of *Harvest of Shame*.

A year ago Michigan Seasonal Farm Labor Committee was formed under the sponsorship of Michigan State Horticultural Society. Its objec-

tive is to obtain information on the farm labor situation and to learn how to make better use of the labor force.

The committee has asked others to work with them as resource people for advice and guidance—the extension offices, health department, labor office, Western Michigan University, and others. The work of the committee has been divided into four parts.

Part 1: Legal responsibility and procurement. We can't legally recruit labor from another state, but we can and should write old employees because this is where our best help comes from. We will need extra help and the committee is working with the labor office to secure it. How many employees will you need this year? Let your labor office know.

Part 2: Physical needs of farm labor. We are working with the health department on housing and health standards for maintaining desirable conditions in our labor camps.

Supervision by the grower is the first guarantee of an orderly camp. Let's look at our camps as the public sees them. A little dressing up could improve the looks a lot.

As for building new cabins, the agricultural engineering department of Michigan State University has

plans. And the health department has plans for toilet facilities, showers, and dry wells.

Part 3: Management techniques and utilization. A uniform registration card is being prepared to include the worker's Social Security number, name and license number, where the person worked last, and the home address.

The committee is contacting growers in other states to compare notes with the idea of a possible exchange of labor from one community to another within a state.

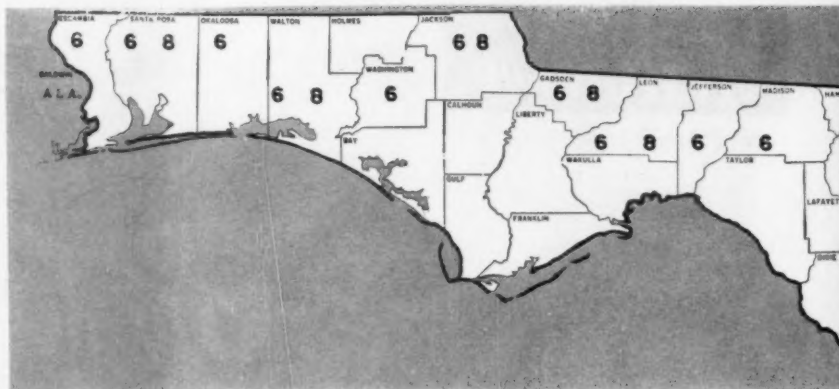
Industry lists the wants of workers in the following order: job security, job satisfaction, job promotion, and job recognition. Last of all is job salary. Be friendly with your workers, be courteous, and use good common sense. Remember they are your bread and butter.

Part 4: Public relations and publicity. Here we have really fallen down.

As an industry we have furnished jobs for a group of people who were pushed out in the cold by their own government. We house these people on our land, we build the houses at our own expense, and charge no rent.

Now public criticism is leveled at
(Continued on page 47)

This tour of Florida is the nineteenth in our series of articles on important fruit areas. Previous visits have taken us to New Jersey; East of the Cascades in Washington; California's Central Valley; the Ozark region of Missouri, Arkansas, and Oklahoma; New England; the Lower Rio Grande Valley of Texas; British Columbia's Okanagan Valley; Western New York; Georgia; Appalachia; Idaho; South Carolina; Michigan; Southern California; Nova Scotia's Annapolis Valley; Oregon; Oklahoma; and Ohio.—Ed.



THE FRUIT AREAS OF AMERICA

FLORIDA

By A. H. KREZDORN

University of Florida, Gainesville

PROBABLY in no state in the nation is the economy as dependent on its fruit industry as in Florida.

The type of fruits produced are varied. In the north and northwest section are the tung and pecan orchards. Commercial tung acreage is on the decline because of low monetary returns and this tendency is unlikely to change in the near future.

The development of pecan plantings has been slowed by the failure resulting from poor site and variety selection. However, there are many acres of good land and with the availability of such scab-resistant varieties as Elliot, Desirable, Curtis, and Stuart, an expansion potential is very real.

Other tree and bush fruits common to temperate zone areas are not grown to any extent, but a vigorous breeding program in Florida Agricultural Experiment Station has reached a stage where commercial peach and blueberry production is promised for the very near future.

Also, both the recently released Florida variety, Flordagrind, and the Texas release, Brazos, make commercial blackberry production feasible at least as far south as Tampa. There was once a commercial grape region in Florida, but lack of a market for the adapted varieties resulted in its failure. A grape grower's association still exists and an active breeding program is being carried out.

Winter strawberry production, almost entirely of the Florida 90 variety, is well down from its peak and there is no portend of large increases in plantings of this fruit.

The strawberry center of Florida is at Plant City in Hillsborough County where about 2000 acres are in production.

The extreme southern strawberry area near Miami has about 400 to 500 acres with about 150 of these in a single planting. For the most part, berries from this area are air expressed to New York markets.

In another small area between Gainesville and Jacksonville in north central Florida, there are 200 to 300 acres of strawberries.

Although at present Florida has little more than 2000 acres of strawberries, at one time it had several times this many acres. The labor shortage is primarily responsible for the decrease.

The first berries shipped out of

Florida to northern markets in early to mid-December come from the Plant City and Miami areas. From then until April, Florida has the strawberry market pretty much to itself even though its production is relatively small.

Swing far to the south, to the Miami area and to warmer locations along the east and west coasts, and Florida fruits go truly exotic. Avocados are produced in substantial quantities and to a lesser extent mangos and lychees. The mango is unsurpassed as a dessert fruit, but urban developments in its limited area of adaptability preclude much expansion.

Avocados and lychees are adapted not only to the tropical locations but to much of the citrus area. However, neither can compete in monetary returns with citrus.

Such fruits as star-apple, sopote, sapodilla, canistel, tamarind, akee, jaboticaba, pineapple, papaya, guava, and others whose names are unfam-



Florida 90 strawberry, developed at Plant City, is most important variety grown in the state.

AMERICAN FRUIT GROWER



The major areas of Florida fruit production are: 1) avocados; 2) citrus (not limes); 3) limes; 4) lychees; 5) mangos; 6) pecans; 7) strawberries; and 8) tung.

miliar to the northern grower are commonplace as dooryard fruits and in some instances as small commercial plantings. There is little hope that any large increase in plantings of these tropical fruits will develop. Many are grown as novelties and have rather limited appeal.

With citrus the story changes. The Florida citrus industry is unsurpassed in size and stability in this country. Comparisons rather than

production figures most adequately portray its magnitude. The orange production in Florida is greater than the apple production in the entire United States.

Grapefruit production exceeds that of the nation's pears, and the tangerines produced surpass the combined totals for sweet and sour cherries. In addition, there are 2000 to 3000 acres each of Murcotts, tangelos, and lemons and 10,000 acres of limes.



Bill Mathews, extension citriculturist (left), discusses the need for pollinators for tangelos with Howard Harile, owner of 180 acres of citrus plantings in the Ridge area.



Oranges being unloaded at one of many concentrate plants in the state. The development of citrus concentrate solved problem of overproduction for many growers.



Rolling hills, numerous lakes, plentiful rainfall, well-drained soils, and high productivity typify the Ridge area, the most imposing of the four Florida citrus regions.

There are four distinct citrus regions: The most imposing is in the central part of the state on a high sandy ridge of rolling hills that are interspersed with thousands of lakes. Except for scattered areas of lowland the citrus plantings are continuous for 150 to 200 miles. This is known as the Ridge area and it is far greater in size and higher in productivity than the others.

(Continued on page 38)

Their Peaches ARE DIVIDEND PAYERS

Twin brothers Mark and Clark Brownell practice intensive culture, are rewarded year after year with high yields of top quality peaches

By JOHN B. DOBSON

Assistant Wayne County (N.Y.) Agricultural Agent

A SUCCESSFUL partnership means a profitable farm operation. This statement certainly applies to Mark and Clark Brownell, twin brothers, who operate a 375-acre farm on the shores of Lake Ontario in Williamson, N. Y.

Gradually expanding from the home farm, these industrious brothers have acquired two additional farms, giving them a total of just over 300 acres of bearing and non-bearing fruit. Apples and cherries represent the bulk of the acreage; however, 24 acres of Elberta peaches have meant a profitable return year after year.

In questioning Mark and Clark as to how they are able to maintain this high margin of profit, their answer was intensive culture. This, of course, applies to the fruit operation as a whole.

With peaches, they feel that their pruning operation is one of the most important cultural practices. Usually four or five men equipped with Miller-Robinson power pruners prune the peach orchard in late March and early April each year.

Severe cutting back, giving the trees a squat appearance, has been the Brownells' aim since this facilitates more bearing area per tree and, in addition, eliminates the need for ladders during harvest. The trees in this orchard are set 24x24 feet. They bore over 4000 bushels of peaches in 1958. The twins feel this is about their peak potential.

The winter of 1957 was a hard one on fruit trees, especially peaches. Temperatures dropped to 26° below zero causing extensive damage to many thousands of trees in the fruit belt of western New York. Because this 24-acre block of fruit is right on the lake shore, temperatures were not as severe and the Brownells did not have as much damage as was experienced by other Wayne County growers.

A great deal of terminal growth and some of the weaker limbs did suffer, however, but by severe cutting

back in the spring of 1957, the orchard was restored to its original vitality and growth in just one year's time. The 1958 harvest certainly bears this fact out.

As far as soil management is concerned, clean cultivation, as recommended by Cornell University, is maintained in this peach orchard. Cultivation is accomplished with a 12-foot drag up until the end of June.



Twin brothers, Mark (left) and Clark Brownell, examine Elberta peach tree in their 24-acre orchard. Most of crop is made into baby food.



Mark demonstrates how 20-bushel bins can be brought to loading area with fork lift. Clark can lift two bins at a time with pallet loader.

The Brownells maintain a fleet of four tractors and a Caterpillar bulldozer. Annual weeds and grasses are usually mowed twice before harvest.

Spring application of 10-10-10 maintains an adequate mineral balance in the sandy loam-type soil. Mark and Clark pay close attention to the mineral needs of this orchard, as they do to the farm as a whole.

A periodic soil analysis is made which keeps them up-to-date on this important phase of soil management. A pH of about 5.8 to 6.0 is maintained with crushed dolomitic limestone.

Both the lesser and the regular peach tree borers are important insect pests in the peach country of western New York. By careful attention to grubbing weed growth away from the lower tree trunks and by avoiding mechanical injury to the trees, this orchard has had very little trouble with either of these pests.

Nevertheless, two applications of parathion are made, the first in early July and the second in the first week in August. In addition, this program holds down red mite population.

(Continued on page 50)

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prunes; grape leafhopper, two-spotted mite and Willamette mite on grapes; and for lecanium scale on plums and prunes. Harmless to foliage, ethion can be used with safety on all varieties except Wealthy and Melba apples. Ethion is tailored to your orchard program—an excellent summer miticide, it provides extra protection against codling moth—for fast action and long protection, see your dealer now for ethion.

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NAI OPPOSES LABOR BILLS

**Legislation introduced in both Senate and House
would intensify farm management problems,
permit strikes at harvesttime**

FRUIT GROWERS from coast to coast are disturbed and angered by 11 bills introduced into the Senate by Senator Harrison Williams, Democrat from New Jersey. The same bills have been introduced into the House by Representative Zelenko (D, N.Y.).

These farm labor bills, if enacted, would, among other things:

- 1) Establish a minimum wage for agriculture.
- 2) Prohibit employment of children under 15 in agriculture.
- 3) Eliminate exemption of farm workers from Labor Relations Act, which means growers must submit to union organization of farm workers.
- 4) Register labor contractors.
- 5) Set up a citizens' council on migratory labor.
- 6) Give control of agricultural harvest labor to the Secretary of Labor.

Senator Williams is chairman of the Senate Subcommittee on Migrant Labor. The National Apple Institute, speaking for the apple growers of America, has opposed five of the 11 measures.

NAI opposes S. 1122 on minimum wages because this minimum wage bill for agriculture would tend to eliminate one of the last sources of employment available to many marginal workers. S. 1122 is believed to be socially harmful. Eliminating opportunity to work is not the solution to a social problem.

Complicating this factor is the problem of agricultural cost accounting. Most farmers do not maintain such records as would reflect the accuracy of payments of minimum wages. They would have to alter considerably their methods to do so.

This raises the tremendous technical problem of evaluating prerequisites. Agricultural prerequisites include in many cases housing facilities, etc.

Enactment of this bill would require the issuance of arbitrary prerequisite evaluation procedures by the Secretary of Labor. These procedures undoubtedly would misfit many cases and would further contribute to an already difficult farm management problem.

S. 1126, Registration of Labor Contractors, is opposed by NAI because under it the Secretary of Labor would become accuser, jury, and

judge of an arbitrary set of regulations that the Secretary of Labor would promulgate to control the registration of labor contractors. Such registration would inevitably result in control by the Secretary of Labor of the agricultural migratory labor market.

A great many labor contractors, through native leadership ability, have risen from the ranks of farm labor. These men are educationally unequipped to perform the laborious clerical functions this bill would impose.

NAI believes that affirmative action is needed to eliminate unjust and dishonest labor contractors wherever they appear. But this bill would extend the authority of the Secretary of Labor far beyond the point of necessity.

Objections to S. 1128, To Amend National Labor Relations Act, are based on the fact that union organization of agricultural workers presents the socially unacceptable spectre of strikes at harvesttime. The use of the strike on perishable commodities has no resemblance to industrial bargaining. In agriculture the strike would destroy the perishable product.

S. 1129, Farm Labor Recruitment, is opposed because this bill would give effective control of agricultural harvest labor to the Secretary of Labor. He would have the power to formulate arbitrary rules and regulations and to sit in judgment on those rules and regulations. NAI does not believe it is in the best interest of the American democracy to place such power in any federal office.

S. 1132, National Citizens' Council on Migratory Labor, is opposed on two counts. First, the creation of the Citizens' Council would duplicate the 27 governors' migratory labor councils already in operation, and the President's Committee on Migratory Labor. Second, the council would become a government-financed and organized pressure agency.

The council would not be truly representative of the farmer and of farm labor, since the council's 13 members would include only two farmer and two farm labor representatives. This type of agency would be in direct conflict with the basic principles of American democracy.



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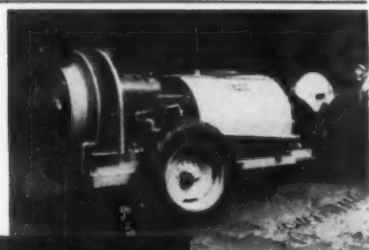
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Berries

Blueberry Booklet

BLUEBERRY enthusiasts throughout the United States will be interested in a new booklet published by Rutgers University entitled *Blueberry Research — Fifty Years of Progress*. Compiled by James N. Moore and N. F. Childers, the booklet brings together reports on research findings of blueberry specialists working in diverse areas and with differing perspectives.

Copies of the booklet, as long as the supply lasts, can be secured by writing James N. Moore, Department of Horticulture, Rutgers University, New Brunswick, N. J.

Plant the Right Blueberry

DURING the Small Fruit Workers' Conference held last July blueberry experts conducted a panel discussion to decide which blueberry varieties should be planted and which discarded in the Northeast. Panelists were G. M. Darrow and D. H. Scott, USDA, and agricultural experiment station horticulturists, J. N. Moore, New Jersey; Harry Bell, Michigan; and E. M. Meader, New Hampshire.

The "Big Seven" varieties they

recommend for planting are as follows, in sequence of ripening:

Earliblue—Large, sweet, hardy; not productive enough and does not stool enough for general use in Michigan.

Collins—Large, sweet, hardy; new, like Earliblue, but five days later and more promising in Michigan.

Blueray—Large, high-flavored, vigorous, very hardy, sweet when blue; clusters may be too tight for mechanical harvesting.

Bluecrop—Large, good tart flavor, hardy, dependable cropper, tart in North for about 10 days after turning blue.

Berkeley—Large, lightest blue, sweet when blue, less hardy than Bluecrop and Blueray; some fruit drop.

Herbert—Largest, highest flavor, very hardy, dark, tart in North for 10 days after turning blue, skin somewhat tender for distant shipment, dwarf grower far North.

Coville—Large, very good tart flavor 10 days after turning blue; week later than Jersey in Michigan.

The following varieties are recommended for planting for special purposes:

Jersey—Dependable in Michigan, sweet when blue, ripens over long

FRUIT PEST HANDBOOK

(SEVENTY-FIFTH OF A SERIES)

BLUEBERRY STUNT

STUNT, the most important virus disease of cultivated blueberries, is found in most of the major blueberry producing states. Stunt has been observed on species of wild blueberries throughout the northeastern United States and is believed to be native to that area.

A characteristic symptom is the yellowing of the leaves along the margins and between lateral veins. Green color is generally retained along the midrib and lateral veins. Affected leaves are often cupped and usually reduced in size. Leaf symptoms are generally conspicuous on young basal shoots. Chlorotic or yellow areas generally turn a brilliant red in early fall. This color is distinctive until the development of normal fall coloration.

Diseased plants live for many years, but are much reduced in vigor. Infected branches may continue to set some fruit, but the berries remain very small and are of poor quality. If a diseased plant is cut back to the crown, new growth remains weak and stunted. Branches have a twiggy appearance as a result of shortened internodes and the growth of normally dormant lateral buds.

So far as known, all varieties are susceptible, but some are more severely affected than others. Rancocas seldom shows definite symptoms and apparently normal yields are produced.

Stunt is transmitted in the field by the sharp-nosed leafhopper. The rate of spread will depend upon the number of diseased plants present and the abundance of the leafhopper. A field may become unproductive in five to 10 years. Stunt has been transmitted by budding or grafting.

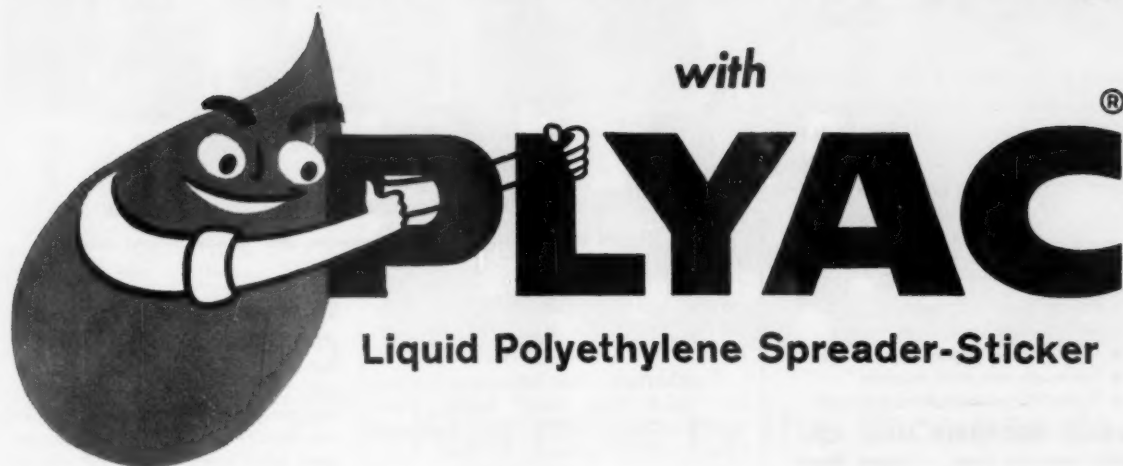
Control. Infected plants should be rogued as soon as detected and leafhoppers should be controlled with DDT, malathion, or para-



Stunt symptoms on Atlantic blueberry, showing marginal and interveinal chlorosis and cupping of the leaves.

thion as recommended by local authorities. The use of propagation wood from virus-free plants is essential. Stunt-infected plants cannot be cured.—E. H. Varney, Rutgers University, New Brunswick, N.J.

Each Cover Spray Will Stick and Stay



READ HOW ALLIED CHEMICAL'S AMAZING PLYAC CAN HELP YOU CUT SPRAY COSTS BY MAKING YOUR SPRAYS WORK BETTER

Plyac saves you money because it helps *all* your sprays stick better . . . last longer—even in rainy weather when most sprays tend to wash off easily.

Plyac saves you time and work, too! You do *less re-spraying . . . stretch the time between sprays.*

Plyac Spreader-Sticker is a non-oil type product in easy-to-use liquid form. Can be added to wettable powders, sprays and emulsifiable concentrates. You need only 2 to 4 ounces for every 100 gallons of spray mixture.

For more effective pest control from your cover sprays this season—be sure to add Plyac.

FOR YOUR COVER SPRAYS

To get healthier looking, better priced fruit . . . use these dependable General Chemical Orchard[®] Brand products . . . and remember to add Plyac for maximum effectiveness!

TDE for Red Banded Leaf Roller and other pests. Available as 25% TDE Emulsifiable Concentrate and 50% TDE Wettable Powder.

GENITOX[®] DDT for Codling Moth, other major insects. Available as 50% and 75% DDT Wettable Powders.

TEDION for mite control right up to harvest.

Also: Malathion, Lead Arsenate, Ovex, TEPP, Parathion and such fungicides as Phygon Wettable Powder, Micro-Dritomic[®] Sulfur and Ferbam Wettable Powder.

*Serving Agriculture
from Coast to Coast*

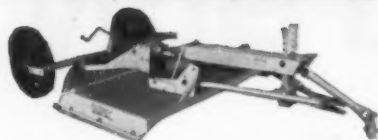


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40 Rector Street, New York 6, N.Y.

FAST—ECONOMICAL
Mowing—Shredding—Clearing

economy model E60 & EM60

WOOD'S "Cadet" ROTARY MOWER



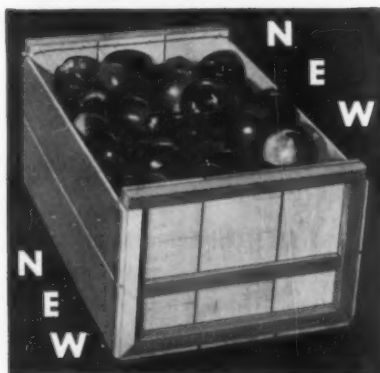
Priced below other 5 foot economy rotaries—the Wood's Cadet mounts on most tractors rated 15 to 30 H.P. with a standard PTO speed. Single blade cuts full 5 foot swath, the Cadet is ideal for large area mowing and pasture clipping.

MODEL EM60 Mounts on Standard 3 pt. hitch.

- Sturdy "dual-keel" frame
- Self-adjusting 3 pt. hitch
- Quick-change free swinging blades
- Full length side skids standard
- 3 joint PTO universal drive (pull type)

WOOD BROTHERS MFG. CO.

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DURABOX FIELD CRATES

Last longer, cost less!

For harvesting, storing and handling, these rugged, wooden containers—reinforced with galvanized steel binding wires—permit virtually unlimited high stacking, "take" extreme rough handling. Sizes from 4/5 bu. and up generally cost less than conventional field containers. Write for details and prices now.



MAIN BROS.

Box and Lumber Co.
Incorporated 1902

KARNAK, ILL.



Harven treated and untreated strawberries after 16 days in cold storage.

period, but is less dependable in New Jersey and New England. Herbert and Coville are superior in flavor.

Pemberton—For home garden and for "pick your own" fields. Very vigorous and productive, but scar is too wet for general market.

Concord—Still liked in New Hampshire, hardy in southern New England.

The following varieties should not be propagated and planted since larger, newer ones are superior:

Pioneer—Bluecrop much larger, bluer, better scar, less disease.

Cabot—Earliblue much larger, better flavored, more vigorous.

Rancocas—Blueray far larger, better flavored, hardier.

Stanley—Blueray much larger, more acceptable flavor, more vigorous.

June—Collins more vigorous, larger berry.

Scammell—Bluecrop larger, better cluster, hardier, and more drought-resistant.

Wareham—Herbert much larger and hardier, even better flavor.

Weymouth—Earliblue lighter blue, far better flavor, more vigorous.

Dixi—Coville holds size better and cracks far less.

Atlantic—Coville higher flavor, larger, more vigorous.

Burlington—Coville much larger and better flavored.

Rubel—Coville and Jersey larger, Coville better flavored.

Ivanhoe—Blueray larger, far hardier.

Strawberry Mold Stopper

CONTROL of mold on strawberries from the time of harvest until they are consumed has been a long-standing problem of growers as well as retailers. Preharvest sprays have been used with some degree of success, although proper coverage of the fruit in the field has been difficult.

Recently a new fungicide has been tested in California to protect strawberries during shipment to eastern markets. This material is dehydroacetate ($C_8H_7NaO_4 \cdot H_2O$) sold under the Dow Chemical Company trade name, "Harven." It has been approved for use by FDA. Packed containers are dipped in a mixture of one part Harven to 25 of water and drained before shipment.

In order to determine the extent of benefits if any from its use under conditions in Blacksburg, Va., tests were conducted last year with dilutions of both one to 25 and one to 37 as a dip for sample pint boxes of strawberries that had been sorted into suitable replications.

Half of the containers were placed in cold storage at 33 to 37° F. and the other half stored at room temperature of 68 to 70° F. Daily counts of molded berries were made to determine the comparative difference between treatments.

In storage at room temperature untreated berries kept for two days without molding, those treated with Harven 1-37 kept for three days, and Harven 1-25 for four days.

In cold storage untreated berries kept for eight days, after which they turned dark and molded by the 10th day. Those treated with Harven 1-37

kept for 15 days and Harven 1-25 treated berries for 16 days. Probably the treated berries would have kept for a longer time except that failure of the refrigerating machinery warmed the room to 56° F.

The tables show per cent mold at different times during storage. From the practical viewpoint any mold in the container makes it unfit for sale. From the experimental standpoint, however, it was interesting to notice the slower development of mold

PER CENT OF MOLDED STRAWBERRIES AFTER VARIOUS STORAGE PERIODS

No. of days in storage	Stored at 68° to 70° F.		
	No Harven	Harven 1-37	Harven 1-25
4	11.7	4.6	0.5
5	30.0	4.9	3.4
6	63.3	31.2	22.1
7	84.2	51.5	15.3
8	93.3	62.6	47.2

No. of days in storage	Stored at 33° to 37° F.		
	No Harven	Harven 1-37	Harven 1-25
4	0	0	0
5	0	0	0
6	0	0	0
7	0	0	0
8	0	0	0

PER CENT OF STRAWBERRIES THAT HAD MOLDED AFTER 16 DAYS IN COLD STORAGE AT 33° TO 37° F.

Treatment	% molded
No Harven	60.0
Harven 1-37	2.3
Harven 1-25	0.1

through treated samples as compared with untreated.

In addition to mold control, Harven also imparted an attractive glossy coating that persisted during storage life and appeared to delay breakdown slightly. In contrast untreated berries tended to darken and shrivel somewhat. No objectionable flavor or odor was noticed in the treated berries.—*R. C. Moore and G. D. Oberle, Virginia Agricultural Experiment Station, Blacksburg.*

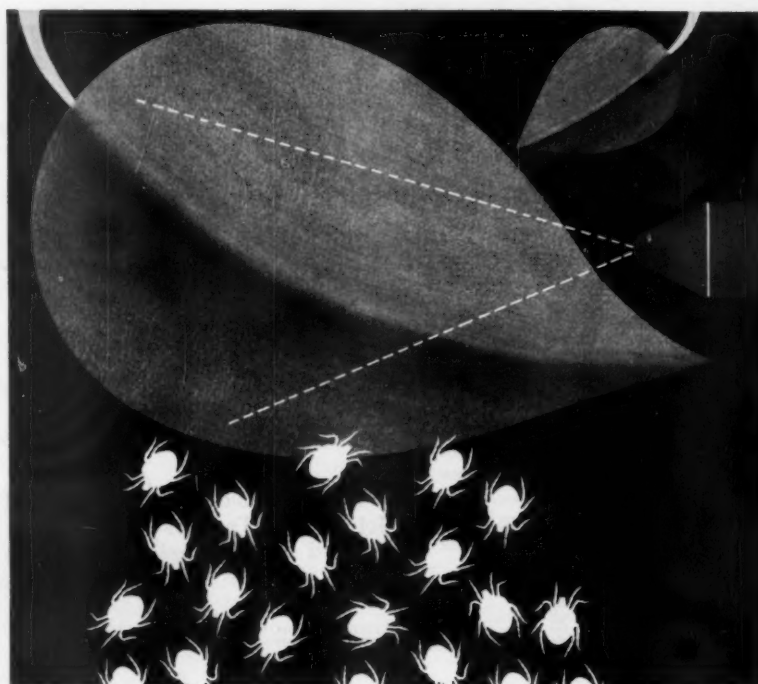
AGRICULTURE ON FILM

American agriculture, its many phases and problems, is the subject of a new catalog of films published by United World Films, Inc., distributors of U. S. Government Films.

Films for Agriculture lists the some 300 subjects, mainly sponsored by USDA, including films on farm management and maintenance, conservation, forestry, irrigation, animal and poultry diseases, insect enemies, and a selection of home economics subjects.

To get a copy of this new catalog, write to United World Films, Inc., 1445 Park Ave., New York 29, N. Y.

MAY, 1961



Kills mites by the thousands

KELTHANE® is sudden death on mites. It kills such mites as European red, Two-spotted, Apple rust, Cyclamen, Brown Almond and Willamette. It gives you a bonus of long residual action. This is bad news for migrant mites and late-hatching colonies. This longer-lasting, effective protection means you can SPRAY and SAVE WITH KELTHANE. Yet, as powerful as it is, KELTHANE is

completely safe (when used as recommended) for both new foliage and fruit-finish, even on sensitive varieties. It is compatible with most orchard pesticides and harmless to beneficial insects. At the earliest sign of mite build-up, kill with KELTHANE. And to insure thorough coverage on hard-to-wet foliage, add TRITON B-1956, the non-oil spreader-sticker. See your dealer for both soon.

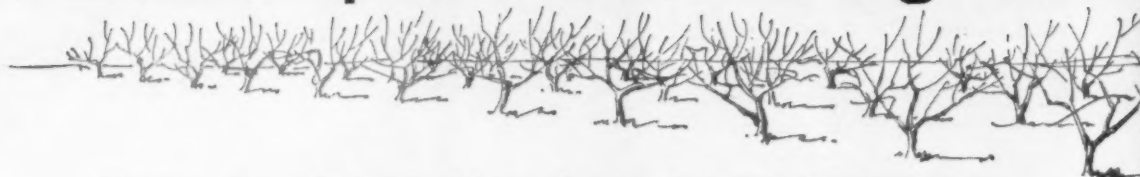
SPRAY and SAVE WITH KELTHANE

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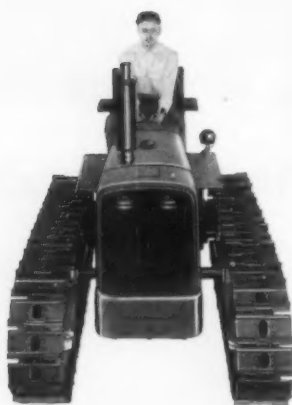


KELTHANE

Put *New Generation* earning power ...team up with time-saving JOHN



*Here are low-silhouette, high-value tractors and implements
orchard-tailored to speed your work, save you money*



The clean-cut, rugged "1010" Crawler is under 4-1/2 feet high at hoodline. Horizontal muffler is available.



The "1010" Utility, less than 50 inches at hoodline, works easily under low branches. Horizontal muffler optional.



"1010" and "2010" Row-Crop Utilities are under 56 inches high at hoodline. Underneath mufflers are available.

New variable-horsepower engines in new, compact, low-built John Deere Tractors put a modern kind of power into all your orchard operations. These gasoline and Diesel engines deliver up to 35 horsepower in ground-hugging "1010" models; up to 45 horsepower in the sure-footed "2010." With multi-speed transmission, you'll step along in the speed-power-economy combination that's exactly right for top efficiency on every job. There's ample power for fast work with heavy loads. On light work, shift up, throttle down, and save fuel.

Independent "Live" PTO offers 540 and 1000 rpm outlets for present and future needs. Big-capacity hydraulic systems put out abundant force to operate rockshaft, remote cylinder, and power steering—instantly, smoothly, with finger-tip ease.

These "power-compact" tractors are matched to a line of integral and pull-type dual-purpose implements, designed to do better work, give longer service not only in your orchard but in all farm work. The list is long and inviting:

Offset harrows . . . spring-tooth harrows . . . offset rotary cutters . . . power hoes . . . fertilizer distributors . . . rotary choppers . . . tillers . . . shredders . . . field cultivators . . . and sprayers. Ask your John Deere dealer to demonstrate.



JOHN DEERE • 3300 RIVER DRIVE • MOLINE, ILLINOIS

JOHN DEERE design, dependability, and dealers MAKE THE DIFFERENCE



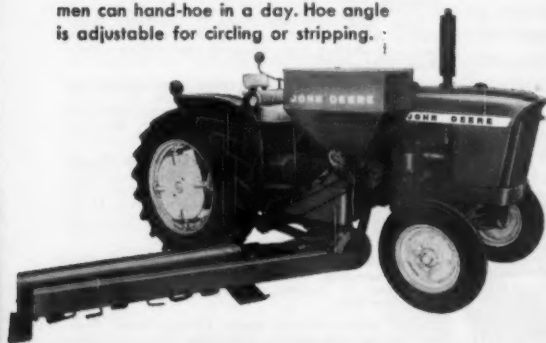
in your orchard DEERE Equipment



The John Deere MLF is an accurate, precision-built integral fertilizer distributor with attachments for planting grasses, legumes, row crops, and doubling as a side-dresser.

416 Series Integral Offset Harrows (shown on "2010" Row-Crop Utility) have hydraulic angling and combine convenience with deep, uniform tillage.

You can cultivate (fertilize, too!) as many trees AN HOUR with the John Deere 49A Power Hoe as two good men can hand-hoe in a day. Hoe angle is adjustable for circling or stripping.



The John Deere Offset 527 Gyramor shreds a full 90 inches . . . 75 to the right side of tractor's centerline, making it ideal for working under branches.

GET RID OF PRUNINGS with a **FITCHBURG CHIPPER**



**and blow the chips
around the tree —
just where you need mulch**

One man and a Fitchburg Chipper—that's the labor saving way to dispose of prunings. Turn prunings into chips and "aim" the Chipper chute under the tree. Chips form a perfect mulch which keeps down weeds, holds in moisture, increases fruit yield and quality.

WRITE FITCHBURG TODAY
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Chippers for better
fruit production.

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COMPACT, PORTABLE, NO PRESSURE TANK



New patented spray principle atomizes liquids completely, uniformly.

Amazing new spray penetrates deep, covers completely—controls insects, weeds and diseases. An airborne mist of chemicals gently envelopes each leaf and stem—even in dense foliage. Chemicals cover more surface area—there's no wasteful run-off. Spray any emulsified liquids or wettable powders without clogging.



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GRAPES

"Do-It-Yourself" Project

"UNLESS you can sell your product, there's really not much sense in being in business."

Bob Erme, head of Concord Grape Products, Yakima, Wash., was explaining why he and his father, Fred, had changed over from being just grape growers to grape processors as well.

They operate two vineyards, and after a couple of years of rather unsatisfactory deals with other processors, they decided to go into that end of the business for themselves. After three years of operation, they are now also in the business of processing the crops of other growers.

Each season since the Ermeys set up their first plant just six weeks before harvesttime in 1958, they have expanded their business. It has been strictly a "do-it-yourself" project. They were fortunate that a banker was willing to finance them, and by the use of old-fashioned ingenuity and common sense, they got into operation.

They shopped around for used equipment, installed it in a hurriedly-but well-constructed building, got a railroad spur run into the plant, and in that first season they processed more than 175,000 gallons of juice and puree.

They expanded even further the following year, and in 1960 they added an ultra-modern press from Germany and concentrating equipment for producing grape essence.

The addition of the concentrating equipment is typical of the way the Ermeys and their mechanic, Bud Leduc, work. They obtained a blueprint of the machine, blew it up, and then proceeded to construct the machine from it. In test runs the machine performed with 100% efficiency.

"Using your head saves time and work as well as money," said Fred. A typical example is their use of the shell of an old rotary lawn mower, to which has been wired a small but powerful 325-pound pull magnet. Nails dropped while new overhead construction was going on were easily picked up off the floor with this device, and it is used regularly to gather nails and bits of metal from freshly harvested grapes as they move on the conveyor into the plant.

The Ermeys even put together their own fork lift. They turned the transmission in an old tractor upside down and altered and added a few control levers and gears. They added a lift frame and a railed-in platform on the

frame. Now a man on the lifted platform has no difficulty reaching the highest stacks of canned goods.

The father-son team has also designed a time- and labor-saving carton for use in packing either of their two products. Two opposite end-flaps on each carton have the words "puree" and "juice" printed on them in such an arrangement that reversing the moves in the simple system of under-and-over folding of the end flaps will expose the correct label and cover the other. This eliminates the need of storing and handling two sets of cartons.

Their selling is done through a brokerage house in San Francisco, Calif. This again was a case of do-it-yourself. Bob knocked on brokerage doors until he found a brokerage house that agreed to handle their product, and things have been going along smoothly ever since.—Homer Hathaway.

Calendar of Coming Meetings & Exhibits

May 4-6—Washington State Apple Blossom Festival—Mrs. Ginny Hopkins, Publicity Director, 128 S. Wenatchee Ave., Wenatchee.

May 26-27—Edible Tree Nut Conference, University of California, Davis.

June 13-16—National Apple Institute annual meeting, Browns Lake Resort, Burlington, Wis.—Patterson Bain, Exec.-Vice Pres., Washington Bldg., Washington 5, D. C.

June 15—Small Fruits Day, Ohio Agricultural Experiment Station, Wooster.

June 19-24—Pacific Division American Association for the Advancement of Science, University of California, Davis.

June 20—Summer Orchard Day, John Tanner Orchards, Speer, Ill.—Bob Rogers, Sec'y-Treas., Illinois State Horticultural Society, 305 W. Walnut St., Carbondale.

June 28—Fruit Day, University of Connecticut, Storrs.—B. T. Peck, Sec'y, Connecticut Pomological Society, Lakeside.

July 24-26—International Apple Association annual convention, Hotel Sherman, Chicago, Ill.—Fred W. Burrows, Executive Vice President, 1302 18th St., N. W., Washington 6, D. C.

Aug. 3—Orchard Day, Ohio Agricultural Experiment Station, Wooster.

Aug. 22-23—Ohio Pesticide Institute, Ohio Agricultural Experiment Station, Wooster.

Aug. 25—Maine Blueberry Festival, Union Fair Grounds, Union.—Ivan Sherman, Chairman, Union.

Sept. 14-16—Texas Citrus & Vegetable Growers & Shippers convention, Shamrock Hotel, Houston.

Sept. 27-29—Florida Fruit & Vegetable Association convention, Hotel Americana, Bal Harbour.—J. Abney Cox, General Convention Chairman, Princeton.

Oct. 1-4—Produce Packaging Convention and Exposition, Chase-Park Plaza Hotels, St. Louis, Mo.—Robert L. Carey, Exec.-Sec'y, Produce Packaging Association, P. O. Box 29, Newark, Del.

Oct. 29-Nov. 1—National Agricultural Chemicals Association annual meeting, The Homestead, Hot Springs, Va.—L. S. Hitchner, Executive Sec'y, 1145 19th St., N. W., Washington 6, D. C.

Nov. 6-7—Washington State Weed Conference, Chinook Motel & Tower, Yakima.

Nov. 15-17—Oregon State Horticultural Society annual meeting, Oregon State College, Corvallis.—Andrew A. Duncan, Sec'y, Oregon State College, Corvallis.

Nov. 20-21—Illinois State Horticultural Society annual convention, Abraham Lincoln Hotel, Springfield.—Bob Rogers, Sec'y-Treas., 305 W. Walnut St., Carbondale.

AMERICAN FRUIT GROWER

recognize this pest?

It's hard to find on this page . . . even harder to find when you use Tedion®

But this red mite and his summer cousin, the two-spotted mite, have whale-sized appetites. They can reduce yields, impair quality—even have an adverse effect on your orchard for next season if not properly checked. Tedion miticide applied early is the key step toward all-season mite control on apples, pears, quinces, crabapples, nectarines, apricots, cherries, peaches, plums, prunes. It's especially effective in killing young nymphs of all mite varieties—European red mite, two-spotted spider mite,

McDaniel, Canadensis, Carpini, Willamette and Pacific. And its long residual activity keeps killing them between each spray. Highly selective, Tedion is harmless to mite predators; to blooms and foliage. Tedion contains no toxic phosphates and is safer for spray operators; compatibility with common orchard pesticides makes it easy to incorporate in standard schedules. Kill mites before they have a chance at your crop. Early

protection will pay off in better yields of high quality profit-making fruit.

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TECHNICAL CHEMICALS DEPT., NIAGARA CHEMICAL DIVISION, FOOD MACHINERY AND CHEMICAL CORPORATION, MIDDLEPORT, N. Y.



You can stop this kind of damage ...the new low-cost Signode way

Signode steel strapping presents a simple and economical solution to the problem of main limb breakage.

The method does not harm or interfere with the growth of the tree. It has been proved in use...10,000 trees in one orchard alone have been strapped. Cost of materials runs only about 13 cents per tree. Application is simple, and may be made early in the growing season or after the harvest.

As any grower will recognize, elimination of main limb breakage is an important basic benefit that prolongs tree life, virtually eliminates orchard clearing costs, and stops sunburn losses that often result from main limb breakage. In addition, the strengthening of trees with this new method speeds harvesting with automatic shaking machines and minimizes tree damage from the use of such machines.

Send for Free Booklet "Strapping Orchard Trees"

You can get started at once using this new Signode way to stop main limb breakage in your orchard. Full details will be sent promptly, without charge. Branch offices in 71 cities—see "Strapping" in the Yellow Pages, or write



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All New—Completely Revised

"How-to Book on Strawberries"

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**AMERICAN FRUIT
GROWER**

Willoughby, Ohio



By HENRY BAILEY STEVENS

Pectin Keeps Doctor Away

NO word has acquired such sudden power in the field of nutrition as has cholesterol. Like the colter of a plow it has marked the line of overturn, and a lot of well-established sod is going under.

If you don't believe it, just listen to the wails of the livestock industries that are suspected of fostering this fatty material in the blood. Fruits and vegetables, on the other hand, are coming into their own.

The climax of the debate seems to have occurred at the meetings of American Heart Association in St. Louis last November with the passage of a resolution recommending "the reduction or control of fat consumption under medical supervision" as a means of preventing atherosclerosis and decreasing the risk of heart attacks and strokes.

Dr. Ancel Keys, of University of Minnesota, who has headed a worldwide study of this subject, in his address at the convention credited pectin from fruits and vegetables as the most promising ingredient to keep coronary disease within bounds. Fifteen grams of it daily for three weeks lowered blood cholesterol levels by an average of 10 milligrams, "a modest but significant amount."

Time magazine wisecracked in its report that two apples a day would keep the doctor away; and its headline to this effect doubtless repays the industry a thousandfold for any stolen apples which Dr. Keys was rumored to have eaten as a boy in a neighboring orchard to satisfy his yen for fresh fruit! (More prosaic calculators say that it might take 10 apples if they alone were to supply the pectin—or perhaps two apples and a quince.)

Russian and British Experiments

APPARENTLY Russia has also been discovering the hidden value of apples. *Nutrition Notes* (June, 1960) quoted a doctor on the other side of the iron curtain as reporting that an apple diet had been successfully used in treatment of high blood pressure and that the functional state of the

central nervous system was also considered to have been improved. It will be a happy day indeed when research competition in East and West settles down to constructive work of this sort.

Meanwhile *British Dental Journal* reports on the study of apples by Dr. Geoffrey L. Slack, British scientist and dental surgeon. Dr. Slack divided a number of children, whose dental health records were similar, into two groups. Group 1 were given fresh apple slices to eat after each meal. Group 2 received no apples. At the close of the experiment Group 1 showed only half as much tooth decay as Group 2, and only a third as much incidence of gum disorders.

On Living and Dying THE reference to Job in this column gets a rise out of that faithful philosopher, John W. Hershey, of Nut Tree Nurseries. John is reminded of Theodore Roosevelt's crack, "He that is afraid to live is not fit to die; and he who's afraid to die is not fit to live."

And Myron Files, who started the discussion going, winds it up with the remark of an old Maine character, John Chapels, of Appleton: "I'm old enough to die any day, I guess, and that don't bother me much. But it does burn me up to have lived so long and to know so little of what it is all about."

Flashes of Brown OUR GOOD FRIEND John B. Behrends, of Glendale, Calif., tells of his experience with one of our feathered friends:

A brown thrasher visited our orchard every spring, repairing its old nest in the low hedge—dry twigs lined with rootlets 3 feet above the ground. The brooding bird sat there tightly, eyes never blinking but watching. If I moved nearer, she would whistle a "joy" call-note to her mate and trip through the hedge, feigning a broken wing to entice me away from the nest. They are among the finest of song birds.

One male used to fly into a maple, ascending to the top by jumps, little runs, and short flights, then pour forth his sweetest music with head held high and notes ranging from high to low and back in quick succession. Thus he would serenade the earth below for many minutes.

Thrashers eat many destructive bugs, lay thickly speckled eggs, and usually leave in September to pass the winter in the South.

Address your "Windfalls" contributions to Henry Bailey Stevens, AMERICAN FRUIT GROWER, Willoughby, Ohio.

NEW! MORE EFFECTIVE CONTROL OF RED BANDED LEAF ROLLERS

with **VELSICOL**

ENDRIN

ENDRIN . . . a new and more effective chlorinated hydrocarbon insecticide, will give you effective control of red banded leaf rollers. It even kills those that have developed resistance to certain other chemicals. It won't harm fruit or foliage, and can be applied with standard sprayers. It's economical, too, because the wettable powder spray you use for leaf rollers will also control plum curculios. The first application must be made at petal fall, so order Endrin now. A second application is suggested as a first cover or pre-cover spray. Consult the spray schedule for your state for specific directions. Be sure you get delivery in time to protect your production, trees, and profits this season!

**MUST BE APPLIED AT PETAL FALL!
ORDER NOW FROM YOUR CHEMICAL SUPPLIER!**

VELSICOL

ENDRIN

**KILLS BOTH
RED BANDED
LEAF ROLLERS
AND PLUM
CURCULIOS!**

VELSICOL CHEMICAL CORPORATION
330 East Grand Ave., Chicago 11, Illinois

AFG-51

Gentlemen: Please send me folder—"New Aid for Apple Growers."

Name _____

Address _____

City _____ State _____



PRE-MIXED ORTHO® CUSTOM BLENDS

"ORTHO Custom Blends reduce inventory, and there's not nearly as much waste from spilled materials," says grower Ray Grammer of Carbondale, Illinois. **"We've been using ORTHO Custom Blends for a year now. They're a real labor saver. I'd say we get out about 2,000 more gallons a day by not having to do our own measuring and mixing."** **ORTHO Custom Blends save time and labor, speed up spraying—because they're pre-mixed. A few minutes is all it takes to open a bag and put it into the tank. There's less spillage, no waste or messes. Handy single bags of ORTHO Custom Blends cut down inventory, save warehouse space. No need to store several packages, various shapes and sizes.**



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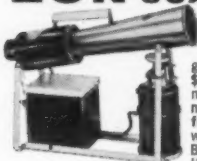
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CHERRIES

Secret of High Yields

TOO many red tart cherry orchards produce 2500 pounds per acre that should be producing 10,000 pounds. That's the opinion of Dr. H. B. Tukey, head of the department of horticulture, Michigan State University. Dr. Tukey advocates maintaining good vigor in cherry trees, for it's the vigorous tree with healthy foliage which is the high producer.

The fruiting habit of Montmorency cherry, Dr. Tukey points out, is such that shoots which grow 7 to 11 inches in length tend to form leaf buds laterally on their current season's growth. These develop into spurs which bear fruit year after year and are highly productive.

On the other hand, Dr. Tukey says, shoots which are less than 6 inches in length tend to form lateral flower buds on the current season's growth. These fruit and leave barren or "blind" wood behind after harvest.

Trees in high-producing orchards have been found to have a high proportion of shoots over 6 inches in length (80%) while low-producing orchards have a large proportion of terminal shoots less than 6 or 7 inches in length (19%).

Trees which are low in vigor, reaching too great a height for economical harvest, or bearing their fruit largely in the tops can be brought back into vigorous productive condition by severe pruning to outside lateral branches coupled with applications of nitrogenous fertilizer.

tended to result in more thinning than when thinning sprays were applied under rapid drying conditions, Hill found.

He obtained no benefit from including wetting agents in the NPA sprays. Hill's recommendation is that growers try chemical peach thinning on a trial basis and then let their records be their guide in future thinning applications.

Mechanization Moves Ahead

MECCHANIZATION of most clingstone peach harvesting as well as thinning and pruning is practically inevitable within a few years, according to a panel composed of Ralph Parks, University of California extension agricultural engineer, moderator; Norman Boeger, peach grower of Gridley, Calif.; Robert Fridley, University of California agricultural engineer; Ian Hardie, field operations manager for Tri-Valley Packing Association; and Norman Ross, Stanislaus County farm advisor.

In his first season's trials, Boeger said, he estimated his harvesting costs were cut in half by mechanization—without allowing for obsolescence of the machine. "At this early stage of development, these machines will become obsolescent fairly quickly," Parks pointed out.

Fridley said University of California studies showed mechanized harvest costs varied from about even with hand harvesting to one-half of that amount, depending on whether ripening times of varieties within an orchard permit the machine alone to handle all or most of the crop.

"If necessary," Boeger said, "you could pick peaches 24 hours a day with a machine." Both small and large growers will move toward mechanical harvesting, Boeger added, as improvements on the machines are made during the next two or three years. Small growers, he explained, could either hire their harvesting done or buy mechanical harvesters by groups.

Last year's trials indicated that damage to fruit from mechanical harvesting ranges between 5 and 15%—including cuts caused by the fruit striking wood and bruises caused by fruit striking other fruit.

But, Hardie pointed out, changes in machines are being made so rapidly that these figures may be much different during the next season.

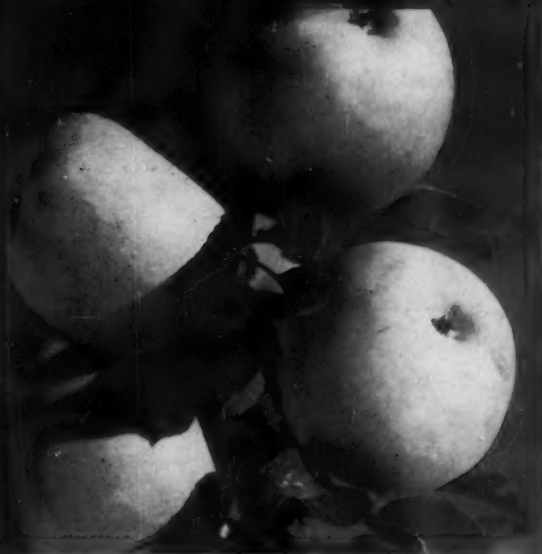
Either once-over or multiple picking may be used in mechanical peach harvesting, Fridley indicated. If the fruit ripens uniformly enough—Hardie estimated 60 to 75% might be cannable at the peak moment—the machine could strip the trees, and losses of green and over-ripe fruit might be more than justified by lower

PEACHES

Thinning with NPA

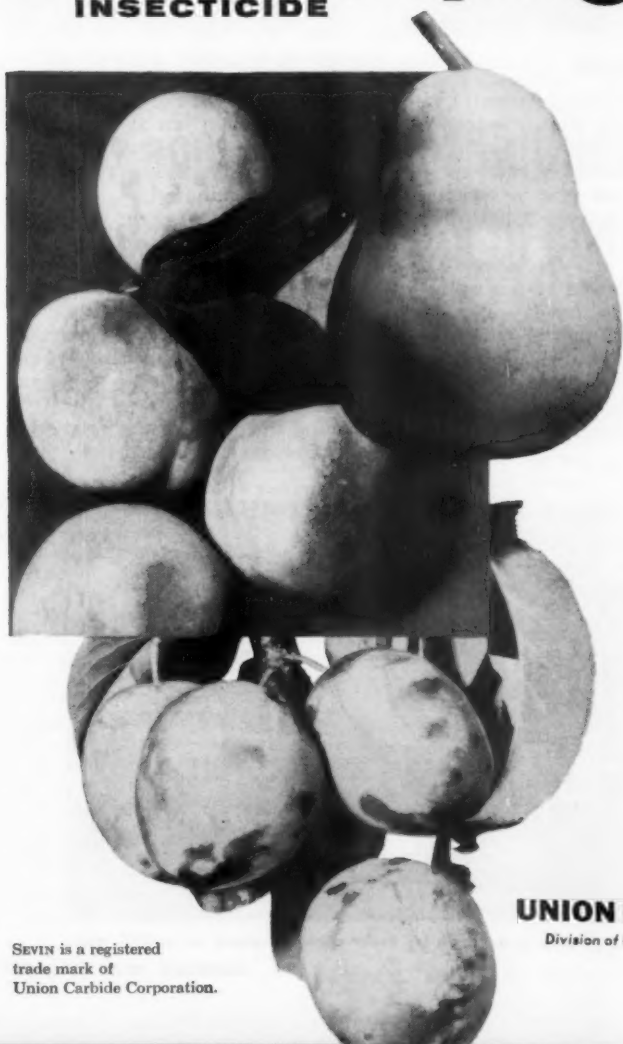
In peach thinning studies at Ohio Agricultural Experiment Station, Wooster, Dr. R. G. Hill, Jr., found that NPA is the most consistent thinning material when applied three to five days after full bloom at 250 to 275 ppm. Degree of thinning is influenced by concentration applied, temperature prior to and during application, variety, and number of gallons of spray mixture applied to the tree.

In an experiment last year Hill applied 2, 4, or 6 gallons of the spray mixture per tree to mature Redhavens. Two gallons per tree resulted in the least amount of thinning; 6 gallons per tree the most thinning. Spraying during periods of high humidity and slow drying conditions



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costs. The machine might also make a selective first picking by shaking only the tops of the trees were fruit generally ripens first.

Mechanical thinning and pruning will become almost unavoidable as a result of mechanical harvesting—"because the crews just won't be there for one job if the other isn't available," Ross said.

Extensive field experience has shown he added, that mechanical thinning is possible, but is a complicated skill which must be learned through practice.

"One common problem," he said, "is the tendency to go back too soon a second time. Wait at least two weeks for the fruit which was injured the first time to shrivel and drop."

Mechanical pruning has proved capable of saving up to half of hand pruning costs. Ross warned that follow-up hand crews should not be permitted to spend much time on the remaining wood, or pruning costs will increase unnecessarily and the trees will be pruned too severely.

APPLES

Fire Blight Control

IN a recent report from Auburn University, Auburn, Ala., researchers say that excellent control of fire blight of apples was obtained in two experimental orchards last year by spraying them with streptomycin sulfate during bloom.

The first spray was applied at 10 to 25% blooms, followed by one or two sprays at three- to five-day intervals up to petal fall. Timing of the sprays is critical, the Alabama researchers say, because treatment was not successful in varieties that bloomed earlier or later than Red and Golden Delicious apples.

Truck-Mounted Sprayer

AT the Circle A Farm, Fort Atkinson, Wis., apple grower Allan R. Vosburg has found a way to spray 25 or more acres in a one-man operation. He uses an orchard sprayer mounted on a short wheel base truck.

Vosburg's present model is a Besler air-blast sprayer on a 1956 GMC

MINIMUM SAFE TEMPERATURES FOR APPLES (According to U. S. Weather Bureau)

Stage of Growth	Temperature Degrees F. (30 minutes or less)
Center bud pink.....	25
Full bloom.....	28
Small green fruits.....	29

Minimum safe temperatures for pears and plums are usually one degree higher, and for grapes two degrees higher. For equal temperatures the amount of damage will be greater on damp nights than on dry nights.

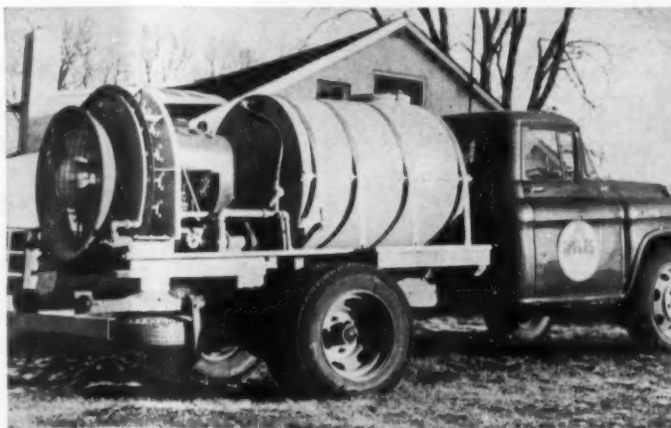
truck. He can maintain a speed of 2 miles per hour with this machine by using regular first gear and low range at the Eaton rear axle.

The plumbing of the air-blast sprayer was rebuilt to carry the spray material forward past the fiberglass tank to the cab. It was divided to pass through valves for both the right and left sides and return to the booms at the back.

Using the air-blast system and 2X nozzling, one man can operate the equipment and attain complete coverage in one trip down the row. So far, control of speed of the motor operating the pump and fan at the cab has not been perfected, and vibration of the pipes handling the spray material needs to be minimized.

One big factor in favor of the use of a truck is the relatively low cost as compared to the price of a tractor large enough to pull the same sprayer mounted on a trailer. The truck can be depended upon to travel over the road from orchard to orchard and can be repaired with greater ease and speed than a tractor.

Riding in the truck the driver has protection from spray drifts. Since



Vosburg sprays 25 acres a day with his Besler air-blast sprayer on a GMC truck.

AMERICAN FRUIT GROWER



Mr. Art Enbom, Warehouse and Production Manager of George F. Joseph Orchard Siding Inc., Yakima, Washington, is an enthusiastic

user of Guthion. He reports virtually 100% control of pear psylla and codling moth as well as cutting spray labor costs almost in half.

"Two applications of Guthion per season assures us almost 100% control of codling moth and pear psylla"

Says Mr. Arthur Enbom, Warehouse & Prod. Mgr., George F. Joseph Orchard Siding Inc., Yakima, Wash.

"Fewer applications of Guthion cuts spray labor costs almost in half"

"We've achieved nearly 100% control of pear psylla and codling moth with only two cover sprays of Guthion annually in our own orchards, as well as in those orchards that we spray under our licensed commercial speed spraying operations," reports Mr. Enbom.

"The thinners did not find a single sting, and we've been able to cut our spray labor costs almost in half," Mr. Enbom says.

Solved pear psylla problem

"Control of pear psylla has always been a headache," Mr. Enbom reports, "because ordinary pest controls have been erratic on this insect. Severe infestations have heretofore required combinations of chemicals, including costly organic phosphates, with DDT added for codling moth."

"These had to be applied twice, ten days apart in early summer, with another spray three or four weeks before harvest. Guthion

gives excellent control of the psylla and codling moth in just two sprays.

"Where former sprays we used could not be applied later than 35 days before harvest, Guthion can be applied within 15 days of harvest and to date it has not russeted the Golden's."

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some measuring and mixing of combinations of chemicals.

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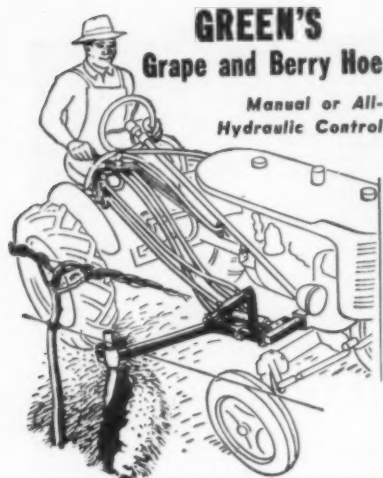
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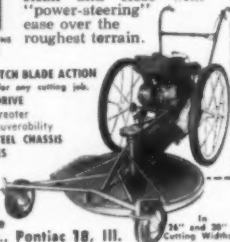
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trips to the source of water can be made rapidly, a nurse tank is not required.

Another advantage is that Vosburg has been able to license the truck under an advantageous "farm truck" rate and to maintain insurance on both vehicle and equipment. This gives more complete coverage than generally afforded farm machinery.

Vosburg plans to do custom spraying this year.

Residue Research

AT Cornell University, apple leaves and fruits, treated with radioactive NAA, were placed in jars; air was drawn through the jars into long tubes, called absorption towers; and the carbon dioxide given off by the leaves and fruits was collected in the towers and its radioactivity determined. From the results of this test researchers determined that no significant amount of NAA thinning spray remains in apples at harvest.

Mite Control

TODAY'S markets demand high-quality apples that have no blemishes from insects, diseases, or chemicals. To produce high yields of quality fruit annually, control programs must be provided that will give continuous protection against the many pests without damaging the trees, fruit, or foliage. The materials must also be approved for their intended use and applied according to recommendations on their labels.

Orchard mites, if allowed to build up high populations, cause mottling or bronzing of the leaves; thus photosynthesis is prevented or retarded to the extent that food needed for growth and quality is reduced. Heavy feeding may cause the fruit to drop prematurely and prevent the setting of buds for next season's crop.

Studies on control of orchard mites for the past 15 years have shown that preventive programs that keep populations at a low level are more effective than remedial programs carried out after large numbers are present. Approved miticides found most effective for use in the schedule during the early part of the season, primarily for control of the European red mite, include chlorbenside (Mitox), ovex, Tedion, demeton, and dormant oil. The grower has a choice of the exact time to begin his preventive program.

Although the various oils which have been used for many years are called old-fashioned by some, they are still highly effective miticides when used properly. Furthermore, mites have never developed resistance to them. Much thought must be given to the entire spray program if oils are included. Delayed dormant oils used

alone or combined with dinitrocresol (DNOC) for aphid control have been proven highly effective.

Oils are more effective when applied at green-tip stage, which is close to the time European red mite eggs hatch. DNOC, however, cannot be combined with oil at this time because of possible foliage injury. Oils are incompatible with certain fungicides such as sulfur and captan either when applied with them or alone soon after their application.

Oil can be safely used with zineb, Niacide, thiram, or ferbam during the green-tip period. Combinations of oil with certain organophosphorus insecticides are reported as more effective than oil alone. Research at this laboratory has not yet fully substantiated these claims.

Certain miticides, first applied at the pink-bud stage, have been especially successful in controlling mites early in the season. Chlorbenside is perhaps the most effective miticide for this period; however BHC should be used with it if aphids are a problem.

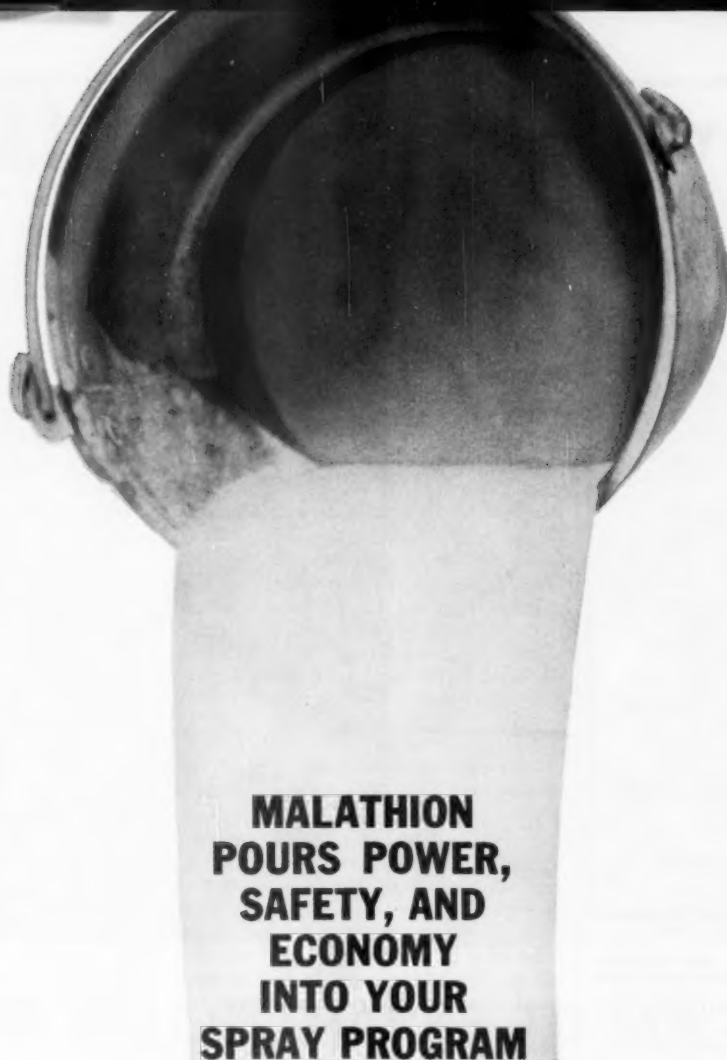
Demeton is still a highly effective aphicide and miticide when used in the pink-bud stage, although several orchardists have reported a shortening of the period of adequate mite control after some years of continued use. Ovex is a very effective early season material but should be used at reduced dosages ($\frac{1}{4}$ or $\frac{1}{2}$ pound of the wettable powder per 100 gallons) in two or more applications because of the possibility of phytotoxicity at high dosages.

Tedion is a good miticide for early season control but is more effective when used in the cover sprays. Generally, two or more early season mite sprays at close intervals are more effective than one.

The petal-fall period, although an excellent time for mite control, is critical with regard to fruit russetting. Use of insecticides and miticides should be as limited as possible during this time.

Early season preventive schedules, unfortunately, are not the total answer to mite control in the Midwest. Midseason control is generally needed for European red mites in apple orchards. At this time two-spotted spider mites and closely related species may also begin to move into the trees. The idea of preventive control is as applicable to two-spotted spider mite as to European red mite.

It is much easier and far less costly to prevent their attack than it is to eradicate a firmly established population. The number of applications and the time they are applied depend mostly on the degree of earlier control and weather conditions. Mite activity



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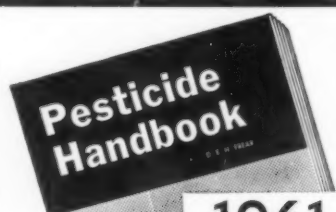


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is greater when the early season is warm or during a drought.

A number of materials can be recommended for control of mites during the middle-to-latter part of the season. These include Trithion, Kelthane, Chlorobenzilate, and Guthion.

Control of European red mite with ethion has been satisfactory, but this insecticide has not always controlled two-spotted spider mite. Ethion may be used up to 30 days of harvest when no more than three applications of 25% material have been applied at 1 to 1 1/4 pounds in 100 gallons.

Trithion, although still effective, was not as efficient in 1960 as in previous years. Trithion should not be used prior to the first of July since it may cause injury to the foliage and fruit during the earlier part of the growing season. Kelthane has been used extensively for midseason control of all species of mites with very satisfactory results.

Guthion in the cover sprays has controlled mites for the past three seasons but only when another miticide was included at the pink-bud period. However, with this treatment two-spotted spider mite populations at times have built up to a threatening level, an indication that control was weak. In 1960 the European red mite was not controlled with Guthion as effectively as previously.

A miticide worthy of further consideration in the summer spray schedule is Chlorobenzilate. It can be applied to apples from second cover to within 14 days of harvest and is relatively safe to handle. Tests have shown it to be a very efficient miticide against both European red mite and two-spotted spider mite. Against two-spotted spider mite it is most effective in preventive treatments and is not recommended as an eradicant for extremely high populations.

Control of mites is considered by many authorities to be the weakest point in our orchard pest control program. The time has come to study and plan control of mites to the same extent and with the same diligence that is applied to control of such major pests as codling moth, plum curculio, or red-banded leaf roller.

Year in and year out mites cannot be economically controlled by waiting until outbreaks occur. A constant awareness of the grower's own orchard conditions is essential. Strict attention must be paid to timing of sprays and thorough tree coverage.

We have no panaceas—no miracle workers. Until more efficient methods or materials are developed, the grower must very carefully plan and properly carry out his mite control program.—*Merrill L. Cleveland and D. W. Hamilton, USDA, Vincennes, Ind.*

PEARS

Outlook on "Decline"

ECONOMISTS have completed, as far as possible with present information, an estimate of the economic impact that pear decline—which killed 150,000 trees last year alone—may have on California's pear industry. It ranges from substantial losses in the overall state economy to near disaster in certain counties.

A. D. Reed, University of California agricultural extension service economist, warned that the ultimate effect of pear decline depends on how many trees are growing on susceptible rootstock and, therefore, probably will die, and how rapidly orchards will be replanted or converted to other uses.

Nobody knows how many of the state's pear trees are planted on susceptible Oriental rootstock, which was commonly used in plantings from about 1920 to 1932. Estimates range from about one-third of the total on up.

This could mean that one-third or more of California's pear production, which brings in about 1% of the state's vast agricultural income, is threatened by the disease.

"But the effects of pear decline on local economies could be very much more severe, because 10 counties in the central part of the state account for 85% of the pear acreage," Reed said.

Within these counties, some of which derive almost half of their farm income from pears, the percentage of trees on susceptible rootstock may be even more than the state average.

In El Dorado County, 48% of farm income comes from pears, in Lake County 47%, and in Placer County almost 20%. In agriculturally rich Sacramento and Santa Clara counties, the percentage is smaller, but the actual returns are even greater—over \$6 million in Sacramento County.

Fight Fire Blight

THE greatest limiting factor in pear production in Michigan is fire blight. A \$10,000 grant for research on the disease in 1961 has been made by the recently formed Michigan Pear Research Association and an agreement has been signed with Michigan Agricultural Experiment Station, Howard Margot, association president, reports.

Research funds are to come from membership dues and contributions. Grower members will be assessed, except for the Kieffer variety.



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100% water-soluble Sul-Po-Mag helps you uprate fruit crop firmness and flavor!

Even if your yields are high, you can still increase your income by improving crop quality. Start by



PEACHES — Regular additions of magnesium in Sul-Po-Mag help overcome alternate-year bearing ... bring more fruit to maturity ... bring higher prices. Ask for premium Sul-Po-Mag by name!

APPLES — Readily available Sul-Po-Mag prevents magnesium deficiencies common to over half of all apple orchards. Its sulphate form of potash guards trees against chlorine injury.

checking crop fertility. The fertilizers you use have a *direct* effect upon fruit quality.

If you are not already using Sul-Po-Mag — double sulphate of potash-magnesia — it can be your answer to better market acceptance and profit. Water-soluble, magnesium-rich Sul-Po-Mag is granular. It times its release of potash, magnesium and sulphur for season-long feeding action. Its magnesium-potash balance helps your crops make better use of other plant foods. This means better tree health, more vigorous fruiting ... more uniform-sized fruit, richer color ... improved firmness and flavor ... better shipping quality.

Your dealer can supply you with mixed fertilizers containing Sul-Po-Mag—your best buy for better fruit!



Quality fertilizer containing a combination of readily available magnesium and sulphate of potash obtained from **Sul-Po-Mag**

This seal is your assurance of extra-value fertilizer

INTERNATIONAL MINERALS & CHEMICAL CORPORATION

ADMINISTRATIVE CENTER: SKOKIE, ILLINOIS

AGRICULTURAL CHEMICALS DIVISION



PRODUCTS FOR GROWTH®
*TRADEMARK

SPM-16-01

MAY, 1961

37

"OLD PRO"

OR

BEGINNER—

BE A

BLUE RIBBON WINNER . . .

Read and Learn!

• **Modern Fruit Science**, by N. F. Childers. This is the brand new, revised edition of Dr. Childers' famous book, "Fruit Science." It includes new methods and ideas on all phases of fruit growing. Sections are included on all types of fruit from apples to berries. 893 pages.....\$7.50

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• **Apples and Apple Products**, by R. M. Smock and A. M. Neubert. A valuable reference book on the finished apple—with information on the many apple products that can furnish a profitable sideline for the grower. The composition, nutritional qualities, factors affecting quality, storage methods, and preservation of apples are discussed. Illustrated with many photographs, charts and graphs. 486 pages \$9.75

Books sent postpaid on receipt of check or money order.

AMERICAN FRUIT GROWER

Willoughby, Ohio

FLORIDA

(Continued from page 13)

Both topography and the lakes are highly important features, for it is the combination of good air drainage and the warming effects of the lakes that offer the best cold protection during freezes. The soils are sandy and well drained but have little moisture or mineral-holding capacity. However, the heavy, fairly-well-distributed rainfall, the deep root systems developed, and the plentiful supply of both underground and surface water for irrigation preclude any real moisture problem.

Another major area, known as the Indian River region, lies along the central part of the east coast. Its proximity to the ocean and the Gulf stream make it very warm. Previous to development, much of the land was continuously or periodically under water. Both a master water drainage system and individual drainage systems are necessary.

Even with proper drainage rooting is shallow, seldom exceeding 3 to 4 feet. This necessitates irrigation despite a heavy annual rainfall. The soils are extremely varied and much greater emphasis is placed on site selection from this standpoint than on the Ridge.

Because of difficulties of weed control in the ditch banks and other management factors attendant with the drainage problem, close attention to grove care is needed. However, a particularly high-quality fruit, due largely to the sour orange rootstock used, is produced and demands a premium on the market.

Directly across the state on the west coast is another area of lesser size. This is a very old area and both well- and poorly-drained soils are present. Where needed, drainage is provided on an individual basis.

The only other well-delineated area

is in the Miami-Homestead section in Dade County. Because of the decreased frost hazard, it is a Tahiti or Persian lime area.

The various systems under which the groves are managed are worthy of note. Citrus marketing and production co-operatives manage about 34% of the acreage. These include both small and relatively large growers, but small growers of 5 to 50 acres are particularly attracted to this system. Here a board of directors is elected by the growers and a trained production and marketing staff hired.

One of the many fine co-operatives available to growers is Haines City Citrus Growers Association. Under R. V. "Red" Phillips, general manager, this organization has been extremely active in assisting in the development of bulk handling and mechanized approaches to harvesting.

This co-operative includes about 170 growers and 5100 acres of groves, grove equipment, a modern fertilizer plant, harvesting equipment, and a packing house. Much of their production is processed by Florida Citrus Canners Co-operative of which Haines City Association is one of several stockholders.

Approximately 19% of the acreage is controlled by large corporations such as Minute Maid, Libby, McNeill and Libby, and others. Minute Maid Corporation alone has expanded from an initial 3000 acres in 1949 to over 30,000 acres.

About 24% of the acreage is managed by individual owners. This type of management is more commonplace in the Indian River area than on the Ridge. Typical of such growers is Dale Talbot, of Vero Beach, who has been growing citrus on the river since 1928. Dale owns and manages 190 acres of grove that is about half grapefruit, with the remainder in oranges, tangelos, and Temples.

About 23% of the acreage is managed by caretakers, whose services



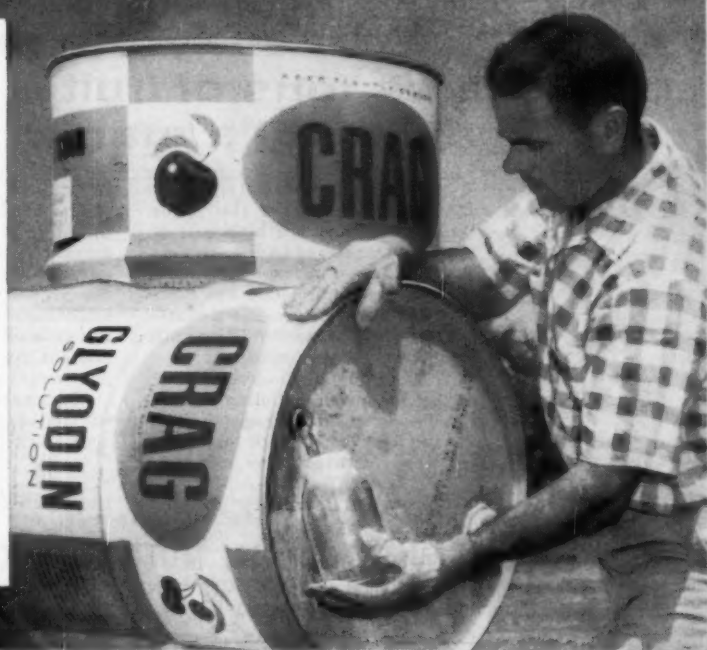
A planting of Florida 90 under plastic in north central Florida. Plastic mulch is in common use.

AMERICAN FRUIT GROWER

ANOTHER FIVE-YEAR TEST SHOWS TOP APPLE YIELDS WITH **GLYODIN** FUNGICIDE

**Yield of McIntosh Apple Trees
Sprayed with Various Fungicides**

Treatment	Bushels per Tree Average 1956-60	% Increase Over Sulfur
GLYODIN	31.1	30.1
Fungicide A	30.0	25.5
Fungicide B	28.4	18.8
Fungicide C	27.1	13.4
SULFUR	23.9	-



Look at the results of this five-year comparison of McIntosh apple production. You will quickly see that high yield is one of the many ways Glyodin pays. For full information on this orchard-size test by a Northeastern experiment station, write to Union Carbide Chemicals Company.

Glyodin gives excellent scab control along with control of summer diseases. A Glyodin schedule also suppresses mites and tends to increase the effectiveness of insecticides used with it. Glyodin spreads and sticks the whole spray mix over foliage and fruit in

a thin, mild, protective film that helps you get top quality and color.

Compare your costs and results with other proved fungicides and you'll see that Glyodin performance saves and pays many ways. Order Glyodin today!

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See your supplier now for economical, effective, reliable GLYODIN



WISCONSIN-POWERED CONVEYORS are popular in citrus groves. They can be easily adapted for handling other bulk crops.

9.2-hp WISCONSIN
earns its keep

handles tons of fruit without a man in sight!

A Wisconsin-powered conveyor helps you forget the labor shortage and the high cost of bulk transfer of fruit from field to plant or market. Once the conveyor and truck are positioned and the engine is started, gravity and the Wisconsin take over — manlessly.

The single-cylinder AENLD engine lowers handling costs in other ways. It's precision-built for heavy duty with minimum wear—and to be on-call whenever needed. High load-lugging torque saves time, by prevent-

ing stalling under shock loads.

The AENLD is quality-built to last for years at lowest maintenance cost. For example, tapered roller main bearings on the drop-forged steel crankshaft absorb all thrusts. Stellite exhaust valves and inserts and positive rotators give up to five times longer valve life!

Mechanize your operation with equipment powered by heavy-duty Wisconsin Engines, 3 to 56 hp. Electric starting available for all models. Get Bulletin S-249. Dept. F-31.



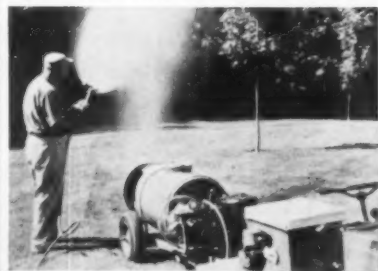
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World's Largest Builders of Heavy-Duty Air-Cooled Engines

F-292

Skibbe PRESSURE SPRAYER

**Big sprayer performance
at low cost.**



Pictured 50 gallon model. Very nicely balanced and easy moving even when fully loaded. 4 piston stainless steel cylinder pump. 5 to 6 gpm at pressures over 400 lbs. 3 hp engine, recoil starter, plastic lined tank, balloon tires. Gauge, gun and hose included. Other sizes available.

Write for Literature

SKIBBE SEED & FERTILIZER SPREADER, SODUS, MICH.

range from custom work to a complete production, harvesting, and marketing service. One of the largest, Karst, Inc., of Orlando, offers complete caretaking from clearing and planting to selling fruit. This organization manages about 15,000 acres.

The citrus industry has not attained its current prosperous status easily. Freezes and hurricanes have periodically caused widespread damage. As freezes pushed citrus south onto the mineral-deficient soils of the Ridge and chemical fertilizers replaced manures, research in mineral nutrition periodically bailed the grower out of trouble and pointed the way to increased production.

At one stage, an infestation of citrus canker threatened the plantings. In an epic example of co-operation between growers, research, extension, and regulatory agencies, this disease was eliminated.

The industry has survived the speculative land boom of the late 20's and a myriad of pseudo experts and dishonest caretakers. While some of the current land developments are still speculative, the industry as a whole has developed a high sense of integrity.

Florida Citrus Commission and Florida Citrus Mutual have added stability and direction to the industry and produced an organized advertising program.

Technological developments such as citrus concentrate and chilled fresh juice have provided the needed inertia when overproduction threatened. The development of dehydrated citrus pulp as cattle feed not only utilized a waste material but solved a tremendous waste disposal problem.

Despite the favorable position it enjoys today, the citrus industry is faced with a battery of serious problems such as spreading decline, virus diseases, and problems inherent in a current rapid expansion of citrus onto flatwoods and marsh land. Also, the demand for easily prepared foods poses a problem to the fresh fruit industry. Here a successful future may be with the development and promotion of easy-to-peel varieties with high dessert quality, such as the recent hybrid releases of USDA, and the development of better handling and decay control measures.

Characteristically, the growers are facing the future with vigor and imagination. Land previously considered worthless is being drained and planted with confidence and occasionally someone casts a furtive eye to colder locations to the North. Certainly no one knows what the future holds but anyone acquainted with the industry must be impressed with its history of development and fascinated by its challenging future.

THE END.

FRUIT-O-SCOPE

SPECIAL MARKET REPORT

MAY, 1961

AMERICAN FRUIT GROWER

Here's a natural in merchandising teamwork. Sunsweet-Sun-Maid Winter Carnival is celebrating its seventh annual double-barreled promotion this year. Both the prune and raisin organizations are 100% grower-owned and grower-controlled.

The most cheering prospect in forecasting a more profitable future for California freestone peaches is the number of acres pulled out this past year as against new plantings, says George Crum, president of California Freestone Peach Association. The 1960-61 survey indicates 4250 acres have been removed with new plantings of a little more than 900 acres.

Ocean Spray Cranberries, Inc., is starting its "Spamerry" sandwich promotion in June. This is part of the all-out effort to find new outlets for the 200,000 barrels or more berries over the million barrels which can be sold in the usual channels.

How's this for citrus promotion? Last year 55 men known as Mr. Sunkist to wholesalers and retailers throughout the U.S. and Canada made 78,000 calls on the trade...distributed over 2½ million pieces of Sunkist display materials...held 250 meetings with trade groups showing Sunkist films or conducting merchandising meetings...used over 250,000 cartons of Sunkist oranges, lemons, and grapefruit in 57,000 displays.

There'll be improved grape juice storage facilities this fall for National Grape Co-operative Association's Concord grape crop. Welch Grape Juice Company is planning to increase its total storage capacity by approximately 2½ million gallons with the construction of nine additional storage tanks, each having a capacity of 273,500 gallons.

California Canning Pear Association has found a new way to improve its marketing position this year. The association has purchased 2000 bins which can be used if a stalemate is reached during price negotiations. They will be provided to members whose fruit can be picked and placed in storage until a price agreement has been made. If the bins are not needed, the association proposes to rent them out and recover their cost of purchase.

National Apple Institute went into action recently when it learned that Caroline Kennedy, the president's three-year-old daughter, was unable to obtain an apple when she visited the White House press office, alone and unannounced. Patterson Bain, NAI executive vice-president, not only dispatched to the White House a special box of apples for Caroline, but also a supply for consumption by newsmen covering the White House and by visitors to the press office there. How's that for making the White House apple conscious?

Minute Maid is introducing two new products in the New York City market with a million dollar advertising campaign—Dairy-Pure orange juice and Miracle Patent fresh-frozen orange juice.

Most homemakers aren't very discriminating about applesauce...except they did show a preference for blends with McIntosh in a survey made by Douglas J. Dalrymple in New York state. Normally, very few McIntosh are used in applesauce because they make a fine-textured, thin sauce which is apt to grade C or lower under present U. S. grades. Perhaps the U. S. standards should be changed to make better use of McIntosh which comprises 35% of the New York state apple crop.

STATE NEWS

The Business Side of Fruit Growing

CALIFORNIA

The Co-operative Approach

SPEAKING at California Canning Pear Association's annual meeting, President Robert E. Collins, Walnut Grove, pointed out to members the power of the co-operative approach to marketing problems. He stressed the importance of grower support of their organization while "awaiting the 1961 season and the kind of economic Russian roulette that is going to be played by pear decline."



Collins

Collins warned growers against unwise pear plantings over the next few years that could result in a production glut and reminded them of their responsibility in following a constructive pattern based on the long time best interests of the entire industry.

Apricot growers in the Golden state got together this spring to form a bargaining co-operative, Apricot Producers of California. The organization will conduct a statewide membership drive in the next few months.

Purpose of the co-op is to enable grower members to be more effective in their bargaining by operating as a group rather than as individuals. Industry spokesmen stress that the ultimate aim is to obtain a reasonable price for apricots.

New director of the State Department of Agriculture is Charles Paul, 48, a Clovis farm leader. He succeeds James T. Ralph who has accepted the position of Assistant Secretary of Agriculture in the federal administration. Paul has been a member of the State Board of Agriculture since 1959.

NEW JERSEY

Apple Marketing Study

THE sale and distribution of Garden state apples will be studied this year with funds supplied by New Jersey Apple Council, State Department of Agriculture, and Rutgers University. Rutgers' department of agricultural economics will conduct the project under direction of Frederick A. Perkins.

Last year the council approved an allotment of \$10,000 a year for three years for apple marketing research at the university. Part of these funds will be used for the new project, part for a continuing study on marketing methods for green summer apple varieties.

The new study will appraise present outlets, sales structure, and market organization for New Jersey apples. Merchandising techniques will be studied and their effect on increasing sales determined. The project will also attempt to provide information which will enable organizations and growers with various sized operations to increase their apple marketing efficiency.

NORTH CAROLINA

North and South Co-operate

MEMBERS of North Carolina Mutual Peach Growers Association voted during their annual meeting to join South Carolina in a marketing agreement. Clyde Auman, new president, said that the association had voted the past two years for such an agreement but it had been rejected by South Carolina growers.

Auman said, "We peach growers in North Carolina feel that such a marketing agreement would have a tendency to stabilize prices at times by removing small size peaches from the market."

Other officers elected at the meeting, in addition to Auman, were W. Floyd Haywood, Candor, vice president, and John C. Wyatt, Candor, secretary-treasurer.



NORTH CAROLINA APPLE LEADERS

New officers of North Carolina State Apple Growers Association for 1961 are, left to right, William Nesbit, Hendersonville, vice-president; R. B. Phillips, Bakersville, president; and Pink Francis, Waynesville, secretary-treasurer.

FLORIDA

Oppose Minimum Wage Bill

AN administration-backed bill to hike minimum wages and reduce overtime pay exemptions now in effect in the food packing and processing industries drew fire from Florida Fruit & Vegetable Association, Orlando.

An association spokesman labeled the bill "a proposal that will wreak havoc in employment in food packing and processing establishments and cause unemployment and economic upheavals all the way back to the farm."

Kenneth R. Morefield, FFVA department head, who at one time was Florida supervisor of the Wage-Hour Division of the Labor Department, said that the administration's wage measure will be strongly opposed by agricultural interests who foresee "the certain ruin" to many farmers that would follow.

"After all," he stated, "the farmer can't give his production away at a loss, and the consumer isn't going to tolerate ridiculous prices for something so basic as food."

CONNECTICUT

Rollins to be Honored

FRUIT growers will meet June 28 at University of Connecticut's Fruit Day to honor Dr. Howard A. Rollins who retired January 31 after 30 years of service to the industry.

From 1930 to 1945 Dr. Rollins was fruit specialist. Since 1945 to his retirement he served as head of the plant science department at the university.

He is a past president of American Pomological Society and American Society of Horticultural Science.

During Fruit Day there will be a symposium on dwarf apple rootstocks with Dr. H. B. Tukey, of Michigan; Dr. Karl Brase, of New York; and Dr. Howard A. Rollins, Jr., of Virginia, participating.

Dr. Tukey will also show slides and speak on international horticulture.

Business and professional friends, as well as fruit growers, are cordially



Rollins

AMERICAN FRUIT GROWER



Quality Appearance and Economy In These Colorful New Berry Cups...*Stain-Proof and Moisture Resistant*

Here's the perfect answer to growers and packagers who want the *best* at a distinct *economic advantage*.

These popular new two-tone cups are ideal for strawberries, bush berries, cherries and small fruits and vegetables. Designed for effective display value as well as utility, they retain their colorful stain-free appearance . . . and sturdy construction assures arrival of fruit at the point of sale with its most favorable appearance preserved.

Available in standard quart size; shipped fully set up; packed 500 to a master container.

Samples and prices on request.



Ask for the new AGRICULTURAL PACKAGING CATALOG — giving detailed information on the complete Packaging Corporation line of baskets, containers and packs for all kinds of fruit, produce and horticultural products.

Planned Packaging moves produce

Packaging Corporation of America

Regional Sales Offices: Grand Rapids, Michigan • Quincy, Illinois • Rittman, Ohio

invited. For details, write to Brainard Peck, Secretary, Connecticut Pomological Society, Lakeside.

LOUISIANA

Big Berry Crop

ACCORDING to a survey by the farm placement personnel of the Hammond office, approximately 10,000 acres of strawberries have been planted in Tangipahoa and Livingston parishes. This represents a 20% increase over the 1960 crop and is due in part to cutback of non-agricultural work, the office reported.

It is estimated that more than 7000 pickers will be needed to harvest this year's strawberry crop.

MICHIGAN

"Dwarf" Notes

APPLE crates serve a dual purpose annually at Hill Top Orchards, Hartford, Mich. Aside from containing the stored fruit in the winter, the crates are used as seats for 350 to 400 fruit growers during the annual meeting of Dwarf Fruit Tree Association in March. Despite the blustery weather this year, people came from 16 states and Canada for the all-day program packed with interesting subject matter about dwarf and semi-dwarf fruit trees.

A panel discussion stressed the value of well-propagated fruit trees. A tree budded 8 inches above the ground line in the nursery will give a stronger and sturdier root system in the orchard because it can be set as deep as or deeper than is the custom in planting standard trees. Since many growers prefer to buy branched trees, nurserymen should grow vigorous one-year-old trees that have two or more scaffold branches.

In the case of dwarfing interstems, the resulting tree depends on what kind of rootstock and interstem materials are used. In other words, a seedling or a clonal sort could be used as the rootstock and either EM VIII or IX as the dwarfing interstem. It was the opinion that more research is needed on interstem fruit trees.

In outlining the nutritional needs for smaller or semi-dwarf trees, Dr. A. L. Kenworthy, Michigan State University, pointed out that different rootstocks will absorb different quantities of the various nutrients. Research the past six years has shown that not only rootstocks but interstems affect nutrient absorption as measured by leaf analysis. The total quantity absorbed will vary with vigor; but not all the differences are related to vigor.

In a recent study of several scion/rootstock combinations it was found

that nitrogen absorption did not vary with rootstocks. However, potassium uptake in EM II and V was the lowest and in EM I the highest, with EM VII, XIII, and XVI intermediate in absorption.

While there was no great difference in phosphorus and calcium uptake among rootstocks, there was a relatively large difference in magnesium and manganese absorption among the rootstocks. Magnesium was high in EM XVI and low in I and VII; manganese was high in EM XIII and low in II.

Low magnesium can be corrected with applications of Epsom salts spray or dolomitic lime. Differences among rootstocks in the absorption of iron, copper, boron, and zinc were not as great.

Dr. A. N. Roberts, of Oregon State College, related the use and experiences with dwarfing rootstocks in Oregon. He said that in general there are three aspects to consider in work with dwarfed trees, namely, qualitative, quantitative, and positional.

The quality of trees is important—and it should be the best. The degree

WRIGHT HAS NEW POST

FORMER production manager of Dillon Orchards, Hancock, Md., J. Earl Wright, has accepted the position of sales manager with Higgs & Young, Inc., orchard supply dealers in Staunton, Va.

Wright's new position, which became effective March 15, will not seem entirely strange to him since he was associated with Higgs & Young as a salesman for 12 years prior to joining Dillon Orchards.



of dwarfing desired lies in types of rootstocks used or the variety/rootstock combinations and this determines the size of the tree or quantity. The positional aspect deals with height of budding and the various lengths of interstems of the trees produced.

Yields from close plantings of Golden Delicious on EM IX rootstock approach 1000 boxes in the fifth year, he said. Projected yields of the same combination in the 10th year could reach over 2000 boxes per acre.

Discussion of some of the basic aspects of spacing and pruning trees showed that planting distance between trees in the orchard depends on grower preference, type of soil and equipment, and scion/stock combinations; that young trees are trained and bearing trees are pruned; and that no two persons will prune alike and that all varieties should not be treated in the same manner.

In summarizing the all-day meeting Dr. H. B. Tukey, Michigan State

University, pointed out that in order to have true orchard rootstock trials rootstocks should be authenticated as to the true clone or clones. Also, trees from the nursery should be certified and should carry a label with the variety/rootstock names, such as Red Delicious/EM VII.

The 1961 officers of Dwarf Fruit Tree Association are Ray Klackle, Michigan, president; Lorne Doud, Indiana, vice-president; and R. F. Carlson, Michigan, secretary-treasurer. Board members are Wallace Heuser, Harold Fox, and Frank Green, of Michigan; Gordon Yates, Minnesota; George Whaley, Canada; and Cornell Eckert, Illinois.

Yearly membership dues of \$2 may be mailed to Room 303 Horticulture Department, Michigan State University, East Lansing, Mich.—R. F. Carlson.

NEW MEXICO

Routing Jack Frost

AT the fifth annual short course at New Mexico State University, Kermit Nutt, head of National Frost Protection Company, Burbank, Calif., told growers about the use of wind machines and orchard heaters for protection of fruit from frost and cold weather.

He estimated that the initial investment for protection of a 10-acre orchard would range between \$450 and \$500 an acre. This amount would cover the cost of one wind machine and a sufficient number of heaters.

Operation cost for the wind machine would amount to about \$3 an hour and fuel for heaters would cost about 15 cents each. The required number of heaters per acre is about 15, Nutt said.

During the short course, New Mexico Apple Council held its annual meeting and re-elected William Schrecengost, Hondo Valley fruit grower, president. George McColm, Farmington, and Clarence Wheeler, of Flying H, were named new directors. Council members also voted to join National Apple Institute.

ARKANSAS

New Processing Plant

A LOAN of \$140,000 has been granted to the new Johnson County Frozen Food Corporation, Clarksville, by the Small Business Administration. The firm will process the riper part of the huge peach crop in the area.

Construction is expected to start immediately on the new plant which will cost approximately \$240,000. The city of Clarksville is raising \$100,000 as its contribution for the first modern peach-packing plant in the state.

THEY WORK HARDER SO YOU CAN TAKE IT EASIER!



THRIFTY CORVAIR 95's Just wheel out the produce . . . let livestock walk the plank themselves. This work-saving, time-saving Rampside model is the best news for farmers since the automatic milker! While you're taking it easy, Corvair 95's are working hard, earning more and requiring less maintenance to boot! They'll carry up to 1,900 pounds on a 95-inch wheelbase and are as much at home trailblazing over rough and rugged backroads as they are sailing along on the highway. You can thank 4-wheel independent suspension for that. The one-piece body frame is made to order for off-the-road punishment. Plenty of see-space through the wide windshield. A roomy, comfortable cab. A thrifty air-cooled rear engine that never uses water or antifreeze. Any way you look at them, these Corvair 95's spell economy and long life.



WORK-PROVED CHEVROLETS This one's a real champ when it comes to farm chores. For all kinds of jobs, hauling perishables, livestock, makes no difference what, Chevrolet's I.F.S. makes every ride easier—for the driver and on the load. Easier on the truck, too. Cuts down tire abuse and needless wear and tear on the sheet metal. Put a Chevy truck to work on your farm (pickup, stake, whatever you need) and see for yourself. . . . Chevrolet Division of General Motors, Detroit 2, Mich.

CHEVY I F S TRUCKS
INDEPENDENT FRONT SUSPENSION

ROADSIDE STAND SIGNS FOR SALE

The large signs are printed on waterproof, heavy board—22" by 28", in two colors. One color is Orange Day Glow which shines in the daytime. The sign has a dark green background. It is eye catching and appealing. Here is what it looks like—

STOP
"BUY THE BEST"
FARM FRESH
PRODUCE

In addition, individual fruit and vegetable strips, which can be attached to the big sign, are available. These strips are 28" long x 5" wide. Here are the signs available:

APPLES	PEAS
BEANS	PEARS
BERRIES	PEPPERS
BLACKBERRIES	PLUMS
BLUEBERRIES	POTATOES
CANTALOUPE	PRUNES
CAULIFLOWER	PUMPKINS
CIDER	STRAWBERRIES
CUCUMBERS	SWEET CHERRIES
EGGS	SWEET CORN
GRAPES	SQUASH
HONEY	TART CHERRIES
MELONS	TOMATOES
ONIONS	TURNIPS
PEACHES	WATERMELONS

The price for the Big Two Color sign is \$3.00 apiece, or two signs for \$5.00. The strips are 50c apiece or 10 for \$3.50.

Minimum ORDER—\$2.00

Send Your Order to—

Roadside Stand Sign Dept.

**American Fruit Grower
Publishing Company**
Willoughby, Ohio

PACKAGING & MARKETING

Dehydrofrozen Apple Slices

MARKET tests conducted by Smith Greig, Michigan State University agricultural economist, indicate a high market potential for dehydrofrozen apple slices.

In this process apple slices are dehydrated to 50% of their original weight and volume and frozen. The added cost of dehydration is offset by a drop in freezing costs. The process may reduce storage, packaging, and transportation costs for some apple slice processors by nearly 50%, Greig believes.

In some consumer preference tests, pies made with dehydrofrozen slices were preferred to those made with normally frozen slices, Greig says. In other tests there were no differences in preferences. Acceptance of the new process by commercial pie bakers was high in those firms currently using frozen apple slices for pies, Greig also found.

Periodic Surveys Needed

TO predict the national supply of fresh peaches more accurately and, therefore, to attain more orderly marketing, National Peach Council is seeking the aid of USDA and co-operating agencies to obtain periodic peach tree and production surveys.

At its 1960 annual meeting, NPC passed a resolution urging periodic surveys of number, age and variety of peach trees, peach production, and primary channels of distribution for all commercial peach producing regions in the United States and Canada.

The resolution requested that these surveys be published at a maximum interval of three years and financed under existing agreements for matching funds from state crop reporting services and USDA Agricultural Marketing Service under provisions of the Agricultural Marketing Act of 1946.

It also asked that USDA Agricultural Marketing Service publish and distribute a yearly release for peaches similar to the one for commercial apples.

Keeps Grapes Cool

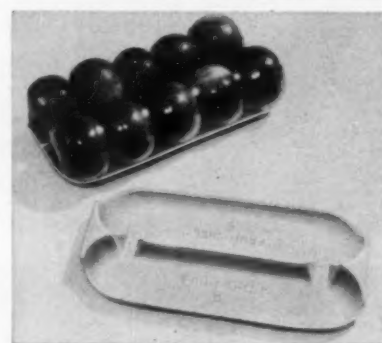
TABLE grapes going from San Francisco and San Pedro, Calif., to Manila, Hong Kong, and many ports in South America, the United Kingdom, Sweden, and Germany should reach the consumer at top quality, thanks to new ways of pre-cooling the sawdust in which the grapes are shipped.

About 300,000 chests of Emperor,

Red Malaga, Cardinal, Ribier, and Almeria grapes are shipped from Tulare County, California, to other countries between harvesttime and March, according to Frederik L. Jensen, farm advisor. He pointed out that sawdust is used to fill slack space in grape chests, cushion the fruit, and absorb moisture that might come from crushed berries.

To hold high quality over long storage and shipment, however, requires cooling both the grapes and sawdust before packing.

"Cooling sawdust by stacking sacks in a cold storage room required



NEW FRUIT TRAY

The #5 "Fruit-Shel" tray, introduced by Diamond National Corporation's Molded-Packaging Division, 122 East 42nd St., New York 17, N.Y., holds eight or 10 medium size fruits, is ideally suited for shrink-film over-wraps.

about two weeks and tied up valuable cold storage space," Jensen said. "We needed a rapid method."

Jensen consulted with University of California scientists and eventually the desired cooling system was developed. A fan was used to force cold air through the sawdust which had been moistened 15%. This method actually improved the appearance of the grapes, the stems stayed fresh, and no molds appeared if the sawdust moisture didn't go over 15%.

Sequoia-Foothill Fruit Growers' Association near Woodlake, Calif., constructed the first forced-air cooling tower based on this method in 1958. The installation proved so successful that three more sawdust coolers were built and used in 1960 and new installations are expected to follow.

Free copies of report No. AMS-404, entitled *Continuous Inspection for Fresh Fruits and Vegetables*, may be obtained by writing Marketing Information Division, Agricultural Marketing Service, U. S. Department of Agriculture, Washington 25, D. C.

AMERICAN FRUIT GROWER

LET'S NOT SELL SHORT

(Continued from page 11)

us by "do-gooder" organizations. I suppose these groups would rather have these workers housed in public housing and cared for by the welfare at taxpayers' expense.

Our workers spend over one-half of what they earn in the community in which they live and work. In Michigan in 1959 we paid a total of \$6,620,000 to farm workers for harvesting apples, peaches, and sour cherries.

That figure is what we growers spent to get the fruit removed from the trees. It does not include hauling, packing, thinning, cultivation, or spraying labor.

I am sick and tired of hearing about welfare cases blamed on fruit growers. Sure, there are some welfare cases, but most of these people would be on welfare wherever they live or no matter whom they worked for.

I am tired of hearing that the crowded schools are the fault of fruit growers. Schools are crowded in other areas that do not employ seasonal labor. We notice that the school census taker comes to our farms to get these people on the census list.

I am tired of hearing that the law enforcement costs are our fault. Who sells the liquor? The federal government collects taxes, the state collects taxes, the village gets a fee for a license, and a local businessman makes a profit, but the fruit growers are condemned when a worker causes a disturbance in town.

Fruit growers are paying their full share in property taxes and school taxes. Think of the gasoline tax collected for the state and federal government out of our payrolls. Think of the sales tax collected from the sale of used cars, food, clothing, and all the other things the workers buy locally. We owe no apology to any group.

The fruit industry supports a whole host of people, including banks, machinery manufacturers and dealers, fertilizer manufacturers, spray salesmen and chemical companies, plus package companies.

We as growers know these things but we should not keep them a secret. We should shout from the rooftops the service we are doing for our communities and for the economy of the whole country.

This is why Michigan Seasonal Farm Labor Committee is working for all of our interests. The committee is willing to be reasonable, but if we must have legislation concerning farm labor, federal or state, then we must have a voice in what is written, and it must be something we can live with.

THE END.

Myers Air Sprayers Deliver a Penetrating coverage that

REALLY PROTECTS!



Exclusive Air Handling Makes the Difference—Powerful, twin centrifugal fans send a high volume of air off the fan blades straight into tree foliage. Tapered outlet case directs a properly proportioned spray pattern into all areas of the foliage. Spray from both sides at once or, to increase foliage penetration, send all air out one side by adjusting sliding covers for right or left hand spraying.

Touch-Matic Control mounts on tractor, gives operator complete control at finger tips. Keeps waste at a minimum, greatly reduces spraying costs.

Miracle finish Epoxy is standard on all Myers Sprayer tanks—a quality extra at no extra cost.

Specifications Myers Air Sprayers

MODEL NUMBER	ENGINE	TANK SIZE	FAN TYPE	AIR-CLASS C.F.M.	REMOTE CONTROL DISCHARGE
58120-232ET5	Water Cooled Gasoline	500	Twin 32" Centrifugal Fans	80,000 at 80-90 MPH	Touch-Matic***
6095-227ET5	Water Cooled Gasoline*	500**	Twin 26" Centrifugal Fans	60,000 at 80-90 MPH	Touch-Matic***
6095-225ET4	Water Cooled Gasoline	400	Twin 24" Centrifugal Fans	45,000 at 80-90 MPH	Touch-Matic***
6040-A36ET4	Air Cooled Gasoline	400	Axial Flow 36"	30,000 at 60-80 MPH	Manual

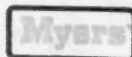
*6095-227ET5 Also available with Diesel Engine.

**400 Gallon Tank and High Pressure Piston Pump Optional.

***Discharge valves activated through electrically controlled hydraulic system.

Prove to yourself

—ask your Myers Sprayer Dealer for a demonstration in your own orchard. He'll be glad to show you how a Myers air sprayer will improve your yield—**increase your profits.**



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Controls major pests—outstanding results against cyclamen mites, aphids, spittlebug.

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Long lasting—Two or three applications normally provide effective all season control.

Controls late infestations—apply to strawberries within eight days of harvest. Economical—fewer applications, longer residual action, mean savings for you.

TECHNICAL CHEMICALS DEPARTMENT, NIAGARA CHEMICAL DIVISION, MIDDLEPORT, NEW YORK

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AGENTS

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THE GREENING NURSERY CO.

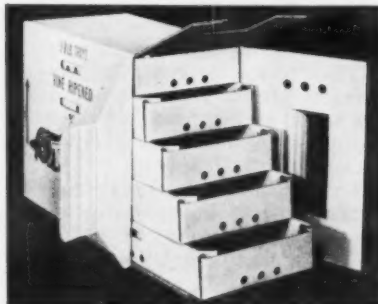
P. O. BOX 605

MONROE, MICHIGAN

NEW FOR YOU

Top Drawer

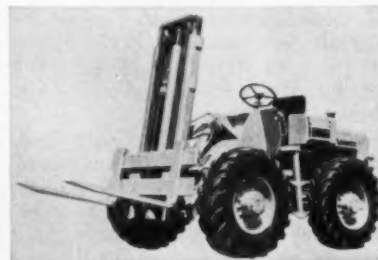
This "chest-of-drawers" for fruits and vegetables is one of the handiest shipping containers I have seen. It assures good product protection, provides excellent ventilation, and makes



one convenient unit out of five. Handling costs in metropolitan areas are often based on unit cost and by using this container you can cut expenses by as much as 80%. The drawers as well as the master box have excellent stacking strength. This neat, compact unit presents a good surface for a merchandising message and for product identity. Paper Products Division of Owens-Illinois, Toledo, Ohio, can give you more information on this handy unit.

Loads of Service

Profit-minded growers everywhere are incorporating bulk handling equipment into their operation. Efficient, easy-to-maintain equipment is a prime requisite for this operation, and the

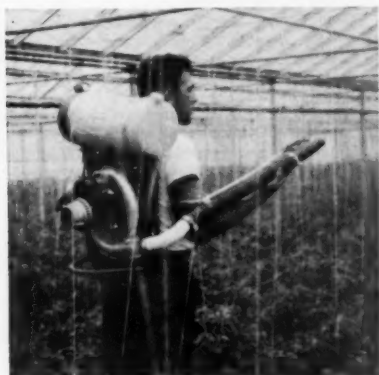


new Payloader meets these requirements and more. The heavy-duty, four-wheel-drive fork-lift tractor offers many features not found in utility-type fork-lift tractors. The Model H-30 pictured has a 6000-pound capacity at 24-inch load center and 14-foot maximum stacking height. What's more, the fork-lift tractor can be easily converted to a tractor-shovel with bucket. For further details about this adaptable unit, write M. Crawford, The Frank G. Hough Company, Seventh St., Libertyville, Ill. He'll be glad to tell you more about it.

AMERICAN FRUIT GROWER

Progress Report

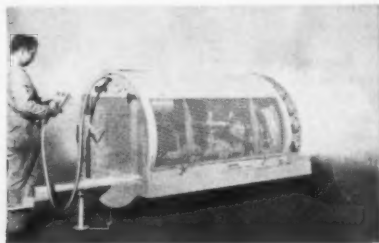
One of the exciting aspects of my job is inspecting new equipment, and I want to tell you about a real "find" right here in Ohio. It's the BSE knapsack sprayer-duster which will fit into your fruit growing operating perfectly. Growers are enthusiastic about a number of features such as the recoil starter, the accurate spray control mechanism which tells you exactly how much spray you are using, and the fact that the motor is mounted on springs so that you get no vibration



when the unit is running. The BSE has a plastic tank which holds one-third more than most knapsack power sprayers and is lighter and easier to use. John Gormsen, of Gormsen Tiller & Supply Co., P. O. Box 8915, Strongsville 36, Ohio, will rush details to you. Why not drop him a line?

Zoom, Zoom, Zoom

An entirely new development in air sprayers called "Zoom" is featured in Besler's products for 1961. Zoom permits field adjustment of air in both volume and velocity. Thus the operator may run his engine at its most efficient speed and still adjust the air for particular conditions. For fragile foliage, or when fruit is on the tree,



the Zoom provides soft, "velvet" air. In dense foliage and large trees, the velocity may be increased to assure penetration. Why not write Tim Colvin, Besler Corporation, 4053 Harlan St., Emeryville, Oakland 8, Calif. I'm sure he will be delighted to send you all the details.

MAY, 1961

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AIRMASTERS

AIRMASTER '322'

300 gal. tank • 36 hp. air cooled engine • 28,000 cfm. @ 100 mph. • 50 gpm. self-priming pump.



AIRMASTER '362'

400 gal. tank • 54 hp. air cooled engine • 35,000 cfm. @ 100 mph. • 50 gpm. self-priming pump.

• The low silhouette on this AIRMASTER '322' means fewer broken branches, less fruit damage because it's designed to go under your low-branched fruit trees. And with its high velocity (28,000 cfm.) it reaches up, too.

• A big brother of the '322', the AIRMASTER '362' easily clears low-branched fruit trees, too, and with its improved air-flow design and big 54 hp. engine sends spray materials right to tall apple tree heights.

• Fruit growers have tried out these new AIRMASTERS and they're enthusiastic about them.

See your local dealer or write:

Manufacturing Corp.
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FRIEND



SPECIAL-AGRI-TOX MASK & GOGGLES

\$7.80 Complete

Mask \$5.95 Goggles \$2.25
Also complete line of equipment and insecticides.

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PEACH Deluxe

Field frame, canvas covered bucket designed especially for peaches and easily bruised apples. Excellent for other fruits. Stiff front stays protect against ladder. Top large enough for picker to lay fruit in carefully. Bottom is quick release type.

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WORLD WAR II VETERAN

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DIVIDEND PAYERS

(Continued from page 14)

Rather than applying a concentrate spray with air-blast equipment, all the borer sprays are made with a high pressure rig using a dilute spray mixture. This insures a real soaking down of the trees and the soil next to the trunk for maximum borer protection.

Leaf curl is also a problem in this area of New York state and a dormant application of ferbam is made before the buds begin to crack. Brown rot control begins during bloom and continues through shuck split with sulfur and again just prior to harvest with captan. The Brownells use a Bean 40 Speed Sprayer or a J. T. Hardie (J.T.P.).

Profit, of course, depends on the market. Mark and Clark have historically marketed about 70% of their Elberta crop to a processor for strained baby foods.

New to this area is the bulk handling of peaches in 20-bushel bins. The brothers intend to move their fruit to the processor in this manner.

The peaches will be picked before they are completely ripe and too soft to handle in bulk boxes. This is the first year that this practice will be employed, but they are hopeful that it will increase their harvest efficiency.

The remaining 30% of the peaches go to the fresh market through truckers or are packed for the market upon request.

What about the future of the peach business in this section of the Lake Ontario fruit belt? Mark and Clark are optimistic to the point where they are setting out new plantings.

Because the Elberta harvest cuts into their apple harvest and harvest labor needs to be kept busy just prior to apples, these new plantings have been geared toward the early and mid-season peach varieties. Jersey Reds and Halehovens are enjoying a great deal of popularity on the local fresh market so that the new plantings will be set to these two varieties.

Although some people think so, the peach is not dead in Wayne County. More and more growers are finding this fruit a highly profitable money-maker.

The Brownells can attest to the fact, however, that high yields and top quality are a "must" to make peaches a paying business. Certainly this very profitable operation has been due to extensive culture, conscientious attention to the total fruit operation, and, of course, a successful partnership.

THE END.

Working drawings for an attractive easy-to-build roadside stand are available for \$2.00 from **AMERICAN FRUIT GROWER**, Willoughby, Ohio.

THE QUESTION BOX

WATERPROOFING A COLD STORAGE

We built a cold storage building recently out of cinder block. It has a flat, plywood roof covered with tar paper and coated with hot tar. Two layers of aluminum foil with fiberglass sandwiched in between were used for insulation. Before we knew it, the inside walls and ceiling were waterlogged. Would painting the outside walls help waterproof the building?—Pennsylvania.

The vapor barrier phenomenon is causing the trouble. This means that water vapor in the air will move from a high to a low vapor pressure area. Generally speaking, this is from a warm to a cool area or from the outside of a storage to the inside. This water vapor will condense on any surface whose temperature is lower than the dew point temperature of the air.

Probably your aluminum foil vapor barrier has lost its efficiency because of corrosion by the caustic action of the cinders in the block wall or the development of microscopic holes. It should be inspected and replaced if necessary. At the same time, seal the inside of the masonry wall with a vapor resistant mastic. The outside of the wall can be painted to help resist movement of water vapor.

WHAT SPRAY PRESSURE FOR GRAPES

I have 3 acres of grapes and am shopping around for a new sprayer. What pressure will give me the best results?—New York.

From 100 to 150 gallons of spray per acre of grapes are required for proper coverage. Spray should be applied at a pressure of about 250 pounds or higher. We suggest you contact your sprayer dealer and get his recommendations.

SIGNS OF WINTER INJURY

How soon will I be able to tell if this winter's severe weather damaged my apple trees, and is there anything I can do about it?—Maine.

You may be able to get a general idea by cutting lightly here and there into the bark of buds, shoots, branches, crotches, trunk, and crown. Look for a brown discoloration. This will not tell you the exact amount of injury, but it will help. Effects of winter injury will show better as growth begins in May or June. The extent of damage to yields, however, can't be determined until later in the growing season. In fact, the kind of growing season that follows winter injury has a lot to do with recovery.

Signs of winter injury are loose bark or cracks on the trunk and in the crotches of lower limbs. Loose bark should be nailed back immediately to prevent further damage. Use large-headed nails such as roofing nails. If loose bark has gone unnoticed for some time, the cambium may have been killed underneath, causing permanent damage to the tree.

Complete loss of damaged trees may be avoided by grafting. For further information, obtain Bulletin 356, *Budding and Grafting Apple Trees*, from University of Maine, Orono, or your county extension agent.

NEEDS SOURCE OF VINES

Where can I get the Concord seedless grape?—Ohio.

New York State Fruit Testing Co-operative Assn., Geneva, N.Y.

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MORE IMPORTANT

1961

SPRAY COMPATIBILITY CHART

THE ALL NEW 1961 CHART

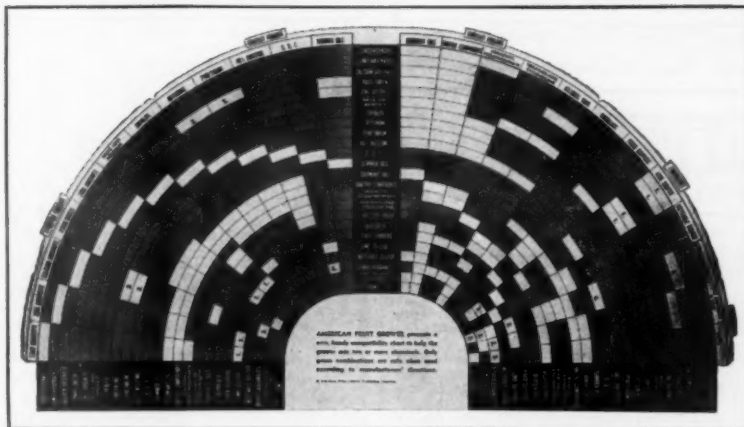
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MODERN AUTOMATIC ELECTRIC CIDER presses for roadside stands and small orchardmen. Presses 10 gallon to 15,000 gallon capacity. Everything for the cider maker, ball bearing graters, press racks, cloths, packing, valves, labels, filters, pasteurizers, bottling equipment. Write for supply catalogue. W. G. RUNKLES' MACHINERY CO., 185 Oakland St., Trenton 8, N.J.

ORIGINAL MANUFACTURER HYDRAULIC juice presses, hand and power operated, designed for small and large volume production. Press cloths, press racks, packing, valves, filter cloths and other supplies. THOMAS ALBRIGHT COMPANY, Goshen, Ind. Phone KE 3-6263.

HYDRAULIC CIDER PRESSES, PALMER style, especially suited to roadside stands and orchard use. Modern, easy to clean. High speed ball bearing graters, plastic linings, tanks, pumps, all supplies including preservatives, cleaning compounds, racks, cloths, etc. Catalog available. ORCHARD EQUIPMENT AND SUPPLY CO., Hill Street, Bristol, Connecticut. Phone LU 2-7848.

NEW AND USED CIDER PRESS AND PROCESSING equipment. Complete line to offer including stainless steel tanks, orchard service, industrial hose, press cloths, press rack and packings. Write for supply catalog. DAY EQUIPMENT CORP., 118 West Lafayette St., Goshen, Ind., Phone Keystone 3-5903.

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10-TON TRUCK HOIST \$199.99—\$50 DOWN, \$50 monthly. Can use Agents. DUNBAR, Minneapolis 8, Minnesota.

SAVE—GRADERS, WASHERS, BRUSHES, baggers. Combination welding, brazing outfits \$98.50. STORY EQUIPMENT, Parkertown, N.J. 1954 FARMALL M AND PLOW, 2500 field crates. 18" produce grader including waxer. ROBERT MCCARTNEY, Shreve, Ohio.

FOR SALE: No. 40 SPEED SPRAYER, 400 CP-500 CP. Hercules motor driven Model L speed sprayer. \$1000.00. 275 CP. 1-15 T. 1 Ranger 1—PTO. 500 gal. Myers 35 gal. Royal Pump new—used bomber tires. Bargains. 70,000 new crates. Dunkley cherry pitter. CORY ORCHARDS, Cory, Indiana.

MODEL 36 JOHN BEAN SPEED SPRAYERS in overhauled condition, with Hercules engines and ability to spray both sides simultaneously. John Bean Dealers for 40 years. ROBINSON FARM MACHINERY CO., Natick, Mass.

SPRAYERS—USED ORCHARD HI-PRESSURE and air blast sprayers—Beans and Hardies. All sizes. Bring your truck or we will deliver. KEIZER EQUIPMENT CO., 2121 Alpine, Grand Rapids, Michigan. Phone EM 1-2615.

GET MORE BUSINESS WITH ATTRACTIVE outdoor signs. They're easily made with Signcraft Letters. Permanent. Inexpensive. Proven nation wide. NORTHLAND PRODUCTS, Route 22-282, Rockland 25, Maine.

JOHN BEAN SPRAYERS, KWH MISTBLOWERS, Howard Rotavators, Tew and FMC Packing House Equipment. GEORGE ACKERMAN, 3310 Corduroy Rd., Toledo 5, Ohio. Phone Curtice 6-7545.

USED SPRAYER MYERS 25 GPM 250 GAL. wood tank no boom \$100.00. 3,000 ft. new aluminum irrigation pipe and couplings 6 inch \$1.00 per ft. Field loader potatoes, onions, etc. 30 inch WEB, PTO, tandem swivel mount, suitable for bulk boxes, pallets. \$250.00. P.B.F. CO., West Lafayette, Ohio.

BEAN DUSTER. GOOD CONDITION, \$75.00. LESLIE ROTHMAN, Lebanon, Ohio. Route No. 2.

COMPLETE PEACH PACKING OUTFIT Niagara make. Write for listing. HOMER GODWIN, Emison, Indiana.

ONE TRESMOTT MODEL 104B 40 BU. peach-apple comb. complete; one 50 bu. Model S3R grader complete; one 24" Model 107 apple brusher. Write CURTIS R. STORY, P. O. Box 71, Winchester, Virginia.

NIAGARA PEACH & APPLE GRADER WITH or without 2 horse electric motor. Write Mrs. HENRY GOOD, Route 1, South Boston, Va.

D4 CATERPILLAR (7V), WIDE TRACK. W. FRY, Jamison, Pa.

HAND TRANSPLANTER—SETS VEGETABLE and strawberry plants. \$4.95. HOCKER'S Grass Lake, Michigan.

TWO JOHN BEAN SPRAY UNITS, ROYAL 20 pumps, 300 gallon tanks, Wisconsin engines. Write SPRAYER, Box 111, Mt. Joy, Pa.

ONE WASHER ABSORBER USED ONE SEASON in first class condition Reason for selling: putting in larger equipment. For full details, contact KERR ORCHARDS, Lexington, Mo.

FOR SALE: CASE 600 CRAWLER—NEW 1 yd. bucket, scarifiers, terramatic transmission. \$7855. FOB Kittanning, Pa. KITTANNING TRACTOR SALES.

GARDEN SUPPLIES

PROTECT YOUR BERRY CROPS, VEGETABLES. Cheesecloth 100 yards by 48". Convenient. 10-yard lengths. \$7.50 prepaid. 50% less mill price. JOSEPH HEIN, 120A Eton Road, Thornwood, New York.

GUINEAS

9 BREEDS OF GUINEA HATCHING EGGS 20¢ each postpaid. KINGWOOD, Route 4, Box 285, Tallahassee, Fla.

HAIR CARE

GRAY HAIR LIQUID IMPARTS COLOR TO gray or faded hair \$2.50. Rotor clips unwanted hair in nose and ears \$1.15. Postpaid. FENDRICK'S, 114 North 6th Street, Allentown, Penna.

MISCELLANEOUS

BANANA PLANT. GROWS ANYWHERE—indoors, outdoors. \$1.50. Postpaid. SOPHIA SULEN, Ladylake, Fla.

SUBSCRIBE TO GOVERNMENT SURPLUS weekly, lists all sales. Buy Jeeps, trucks, boats, tents, tires, etc., direct from government. Next 10 issues \$2.00. GOVERNMENT SURPLUS, Paxton, Illinois.

WINE—BEER—ALE RECIPES. FOR HOME use. Send \$1.00 to HOWE, Box 9031, S. Lansing 9, Michigan.

BUD GRAFT, INARCH THE FOOLPROOF way. Beginners have success. Free details. SHEFFIELD, Box 322, Palmetto, Florida.

FREE RAIN BONNET WITH 10 PASTEL ball pens, 10 refills, 10 pencils, sale price \$1.00. FREE lustrous combs, calendars, specialties. WEBB SPECIALTIES, 606FG Gaston, Raleigh, North Carolina.

MAILING LISTS—300,000 CAREFULLY selected names in the Agricultural field. Individual lists of Fruit Growers, Canners, Shippers, Dealers and many other categories. Ideal for firms wishing to contact leading growers and dealers. For brochure send 10¢ to MACFARLAND COMPANY, Box 540-E, Westfield, New Jersey.

FREE PLASTIC PLANT CATALOGUE. Create beautiful flowers and plants at home for fun and profit. SIDNEY'S Dept. HC, Mineral Wells, Texas.

OF INTEREST TO WOMEN

SEW APRONS AT HOME FOR STORES. NO charge for material to fill orders. In our fifth successful year. Write: ADCO MFG. CO., Bastrop 63, Louisiana.

HOME TYPING: \$63 WEEK POSSIBLE. Details, 81, TREASURY, 709 Webster, New Rochelle AF-5, N.Y.

PLASTIC FREEZER CONTAINERS, SQUARE pints, \$9.95; quarts, \$15.00 per hundred, postpaid. Sample pint, 25¢. OXBORO, Box 7031 BP, Minneapolis 11, Minn.

DRESSES 24¢; SHOES 39¢; MEN'S SUITS \$4.95; trousers \$1.20. Better used clothing. Free catalog. TRANSWORLD, 164-CA Christopher, Brooklyn 12, N.Y.

\$25.00 WEEKLY MAKING FLOWERS. Discount catalog 10c. FLOCRRAFT, Farrell, Penna.

ORCHARDS FOR SALE OR LEASE

APPLE ORCHARD ON INLAND LAKE; 110 ACRE farm; about 82 acres of orchard in bearing age, principally Red and Golden Delicious, Jonathan, McIntosh, Wealthy, and others for better pollination. Served by entomologist. Beautiful setting above lake, A-1 air drainage. Packing house, barn for storage, tools, tractors, truck, power sprayer and other equipment. Going business. Fine investment. Half mile lake frontage, ideal for development without marring beauty or value of orchard; a very rare combination. Spacious fine ten room home with two baths, fireplace and heating plant, view of lake in three directions. Owner's illness prompts sale at \$90,000; terms available. For appointment, please contact DAVID ANDREASON, Sawyer, Michigan; phone: New Troy, Hazel 6-1717 or 6-1292.

WELL DIVERSIFIED 140 ACRE FARM with cherry and peach orchards, asparagus, and buildings on north side of paved road; with 60 acres for grain, alfalfa and pasture on south side (only). Few minutes' drive to new express freeway and town. Ample irrigation pond; fine air drainage; good land. Tools, tractor and equipment; eight room master home; good farm manager's home; fruit and dairy barns; pickers' cottages and other buildings. Subdivision potential; 15 minutes to St. Joseph and Benton Harbor; 30 minutes to Kalamazoo. Aerial photos available. Price \$65,000, terms available. Present owner here 60 years; retiring. For appointment, please contact DAVID ANDREASON, Sawyer, Michigan; phone: New Troy, Hazel 6-1717 or 6-1292.

THIS HILLTOP ORCHARD FARM OF 75 acres, fronting on two roads with main buildings at west end and tenant home at east road, has 20 acres in cherries, 40 acres in apples of bearing age, 3/4 acre asparagus, balance for berries and other crops. Excellent air drainage; served by entomologist. Few minutes to town; handy to new freeway. All tools, 2 tractors, truck and power sprayer. Successful neighbor orchardist interested in its operation. Owner must retire. Price \$40,000; terms. For appointment, please contact DAVID ANDREASON, Sawyer, Michigan; phone: New Troy, Hazel 6-1717 or 6-1292.

FOR SALE: 47 ACRE PEAR ORCHARD, house, J. FITZGERALD, Gold Hill, Oregon.

COLORADO IRRIGATED ORCHARD. 20 acres. Modern 6-room native log home. Full basement. Two story, well-equipped packing shed. Two labor houses. On state oil highway. 7 minutes town. Wonderful climate. HAROLD MOTZ, Palisade, Colo.

160 ACRE APPLE ORCHARD, RETAIL MARKET, cold storage, packing shed, irrigation equipment, 220 total acres. PERRY BUCK, Waverly, Mo. Phone GY 3-2351.

FOR SALE: 40 ACRE APPLE FARM, 20 ACRES apples, 10 acres muck corn land, remainder pasture. 100 ft. apple shed, bank storage, electric cider press, brusher, grader, roller track, 2,000 crates and baskets. 6-room house, farm buildings, house trailer. All in good condition. Good local market for cider and apples. \$29,000. 30% down. Nearby orchard and corn land for rent. Farm machinery and blower sprayer for sale. ALBRIGHT ORCHARD, North Liberty, Indiana.

PERSONALS

PRACTICE DAILY BIBLE READING.

RABBITS

RAISE ANGORA, NEW ZEALAND RABBITS on \$500 month plan. Plenty markets. Free details. WHITE'S RABBITRY, Mt. Vernon, Ohio.

ROADSIDE FRUIT MARKET

HOUSE'S CHERRY CIDER AND CHERRI mix have made some roadside stands more money past 15 years than any other product. Can be shipped in concentrated form. Write for particulars and territory. HOUSE'S CHERRY CIDER COMPANY, Riverside Fruit Farm, Saugatuck, Michigan.

SALESMAN WANTED

SENSATIONAL NEW LONGER-BURNING light bulb. Amazing free replacement guarantee—never again buy light bulbs. No competition. Multi-million dollar market yours alone. Make small fortune even spare time. Incredibly quick sales. Free sales kit. MERLITE (Bulb Div.), 114 E. 32nd, Dept. C-74E, New York 16.

SEPTIC TANKS, CESSPOOLS

SEPTIC TANKS, CESSPOOLS, OUTDOOR toilets. Keep clean and odorless with Northel Septic Tank Reactivator. Bacterial concentrate breaks up solids and grease—prevents overflow, backup odors. Regular use saves costly pumping or digging. Simply mix dry powder in water—flush down toilet. Non-poisonous, non-caustic. Six months supply only \$2.95, postpaid (money-back guarantee of satisfaction), or rush postcard for free details. NORTHTEL, FV-5, Box 1103, Minneapolis 40, Minnesota.

SITUATION WANTED

NEED WORKERS ??? HARD WORKING farmers and ranchers (men only) from central Mexico want permanent year around jobs in U.S.A. Allow 5 to 6 months for arrival of workers. For free details, write: S. D. CORONA (AFVG), Apartado 184, Guadalajara, Mexico.

MIDDLE AGE MAN WANTS CONNECTIONS in orchard with base plus percentage. Have degree in horticulture and several years orchard experience. Write AMERICAN FRUIT GROWER, Box 218, Willoughby, Ohio.

SPARROW TRAPS

SPARROW TROUBLE? TRAP THE PESTS. Free information. JOHNSON'S, Waverly 12, Kentucky.

STOP FEEDING SPARROWS. MAKE YOUR own trap and catch thousands. Free particulars. ROY VAIL, Antwerp 27, Ohio.

SWEET POTATO PLANTS

NANCY HALL, YELLOW YAM, VELVET Reds, Bunch Parts, Redgolds, Allgold, Ga. Reds. Early Parts and Copper Skin. 200—\$1.50, 500—\$2.50, 1,000—\$4.00, 10,000—\$35.00. Quick shipment. THRIFT PLANT FARM, Gleason, Tennessee.

SWEET POTATO PLANTS

PORTO RICOS—NANCY HALLS—"BUNCH" ALL GOLDS—RED GOLDS—GOLD RUSH 200—\$1.50 500—\$2.50 1000—\$4.00 FREE "GROWING POTATOES EVERYWHERE"

STEELE PLANT COMPANY
GLEASON, TENN.

VEGETABLE PLANTS

MARY WASHINGTON ASPARAGUS plants. State inspected. 100 plants \$6.50 postpaid. 2 years old. RUDOLPH SZEWCZYK, Paw Paw, Michigan, Route 3.

TOMATO PLANTS, BURPEE'S BIG BOY, Big Early and Moreton Hybrid 12—\$1.40; 50—\$4.00; 100—\$7.00. Rutgers, Homestead, Marion 25—\$1.00; 50—\$1.75. Mossed, postpaid. PETRIE'S PLANT FARM, Route 1, Hopkins, S. Car.

WANTED TO BUY

WANTED: NEW OR USED GRADER AND apple cider press. Write to JOHN WEBEL, 1165 S. Diamond, Mansfield, Ohio.

WANTED: CIDER FILTER PRESS 12" FOR small operation. Give particulars and price. F. POSSINGER, RD 2, Ridge Road, Medina, N.Y. GRADER, FRUIT OR TOMATO TO SIZE green tomatoes. ALEXANDER BATTOCHI, Spring Valley, N.Y.

WILLS

MAKE YOUR OWN WILL! IMPORTANT! Two Will Forms and "Instructions Booklet", \$1.00. NATIONAL, Box 48313F, Los Angeles 48, Calif.

When writing advertisers be sure to mention

AMERICAN FRUIT GROWER

IF YOU HAVE HERNIA

You can be FREE from TRUSS SLAVERY

Surely you want to THROW AWAY TRUSSES FOREVER, be rid of Hernia Worries. Then Why put up with wearing a Gripping, chafing and unsanitary truss. For there is now a new modern Non-Surgical treatment that is designed to permanently correct hernia. These Non-Surgical treatments are so certain, that a Lifetime Certificate of Assurance is given.

Write today for our new FREE Book that gives facts that may save you painful, expensive surgery. Tells how non-surgically you may again work, live, play, and enjoy life in the manner you desire. There is no obligation. Excelsior Medical Clinic, Dept. H8828, Excelsior Springs, Mo.

MORE FOR YOUR MONEY

Tractor, Grader, Implement, Airplane, Farmwagon and Wheelbarrow Tires Available Satisfaction Guaranteed. Thousands of New and Used Army Surplus Tires in Excellent Condition.



USED TRUCK TIRES

Excellent Condition Grade A

650 x 16	6 Ply	\$ 8.50
700 x 16	6 Ply	10.00
750 x 16	8 Ply	12.00
700 x 17	6 Ply	12.00
750 x 18	8 Ply	15.00
600 x 20	6 Ply	12.00
650 x 20	8 Ply	12.00
750 x 20	10 Ply	17.50
825 x 20	10 Ply	20.00
900 x 20	12 Ply	25.00
1000 x 20	12 Ply	25.00

ARMY TYPE EXTRA HEAVY TREAD

Good for mud & rough going. Perfect condition. Used

750x16—	6 ply jeep	\$17.50
750x20—	8 ply and tube	17.50
900x16—	8 ply and tube	17.50
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TAKE OFFS—90%

Heavy Army Tread includes the tube

750 X 20 \$25.00

SPRAYER TIRES

1800 x 16 14 Ply New Nylon \$77.50

1700 x 16 12 Ply used excel. 35.00

1300 x 24 8 Ply used excel. 35.00

SELLING TIRES ALL OVER THE WORLD FOR OVER 39 YEARS

Tractor, Grader, Implement, Airplane, Farmwagon and Wheelbarrow Tires Available Satisfaction Guaranteed. Thousands of New and Used Army Surplus Tires in Excellent Condition.

SPECIAL OFFER!

FRESH STOCK. Not surplus. Good for Mud & Heavy Loading.

NEW ARMY TREAD 1st

600 x 16	6 Ply	\$22.50
700 x 16	6 Ply	28.00
700 x 15	6 Ply	28.00
900 x 16	8 Ply	45.00
750 x 20	8 Ply	37.50
825 x 20	10 Ply	57.50
750x20	8 ply 1st	45.00

New Regular Tread Specials

825x20	10 ply 1st	\$59.50
800x20	10 ply 1st	59.75
1000x20	12 ply 1st	88.00
1000x22	12 ply 1st	52.50
750x15	6 ply 1st	24.50
750x17	8 ply 1st	40.00
750x20	8 ply 1st	45.00

USED TRUCK TIRES

650x20 700x20 \$2.50

750x20 750x16

AIR TIGHT Larger Sizes \$4.00

NYLON AIRPLANE TIRES FOR CONVERSION

WAGON SPECIALS — FULLY GUARANTEED

All tires sold without wheels will fit on reg. drop center wagon wheels

REMEMBER: when ordering wheels specify	no. of bolts, bolt circle and hub dimensions.
650 x 14 Ply nylon used tire tube and new wheel 9 ton per tire	\$18.50
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750 x 16 12 Ply nylon new tire and new tube 9 ton per tire	30.00
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We have practically every known tire in stock. Please write for sizes not listed.

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Mail Orders Filled No C.O.D. Chelsea 50, Mass.
Send Check or M.O.

DEALERS WANTED

You And The Labor Union

WITH AFL-CIO's Agricultural Workers Organizing Committee beginning to sign up fruit pickers in the Yakima and Wenatchee valleys and continuing their drive to organize farm labor in California, fruit growers throughout the U.S. must prepare to meet the challenge of unionization.

You may wake up some morning to find a group of strange men parading up and down in front of your orchard. The signs they carry may read, "This employer unfair to his employees" or "Join the AWOC and win a fair wage and receive fair treatment." What would you do? What are your rights?

First of all, it's important that you tell your story to your employees—your production and marketing problems, overhead costs, etc. It is perfectly legal to address your assembled employees concerning unionization in your orchard during working hours. But don't promise any benefits, threaten reprisals, or in any way attempt to coerce employees. Such action constitutes "an unfair labor practice."

It is important for you to know your legal rights with respect to trespass, mass picketing, and violence, and be prepared to assert your rights in a legal way.

The best way to prevent union organization is to be fair and impartial to your employees and pay a fair wage for a fair day's work. If facilities are provided, they should be such that you would be willing to use them for yourself and your family.

The National Apple Institute has issued a report on what to do if your orchard is struck. Following are a few excerpts from the release. For a copy of the full report write National Apple Institute, Washington Bldg., Washington 5, D. C.

1) Remind every employee that it is his right under the law to decide whether a union shall represent him or not; that the law does not require him to vote for or against the union.

2) If he has already signed a card for membership or pledged to join, he is in no way obligated to vote for the union. The election is by secret ballot for the employees to vote as they choose. Emphasize the fact that you will treat all alike whether they vote for or against the union.

3) Point out that they should con-

sider the advantages they have without union aid, the cost to them of a union getting in, etc.

4) Make it clear to all employees that no one except top management represents or speaks for management in any announcement or expression of policy. Stress that any statements by others are entirely without authorization and not representative of management's view.

The Fruit Bowl

THERE is some agitation in this country to draw all fruits together under one banner to promote fruits in general—not just a single fruit.

In England this idea has been carried one step further and encompasses both fruits and vegetables. In 1960 the Fresh Fruit and Vegetable Council was formed, with headquarters in London. The campaign was launched August 1, 1960.

Promotion is broad, including poster campaign, press relations, consumer campaign, public relations campaign, dental health campaign, television, puppet show, radio, and all the rest. The entire industry is united to tell the fruit and vegetable story in every possible way. There is considerable enthusiasm for the project.

Many individuals in the United States have felt that this is what must eventually happen here if a really effective promotional program is to be developed. There is merit in the idea. What do you think?

Fruit Growing is Such Fun!



The proper place for fire blight.

Fruit Talk

In case you did not know it, a retail dealer in fruits is a fruiterer.

Chemically treated dog food that "flea-proofs" a dog has been tried experimentally in Oregon, with extremely satisfying results—"Fleas simply drop over dead, in droves, when they bite those OSC pooches," which is suggestive of what is to come in plant protection as well, but hopefully with no such effect on the man who bites into a peach, a pear, or what have you!

If present forecasts come true, it is estimated by G. E. Kline, editor of the *Progressive Grocer Magazine*, that by 1967, supermarkets will control 75% of sales, superettes 20%, and small stores 5%.

"Food for Peace," says Don Paarlberg, can be a powerful ambassador of good will and an effective instrument for world peace. "Agriculture was formerly a stage-hand in the dramatic play entitled 'Foreign Policy'. It is now a legitimate member of the cast."

If you have any doubts about where grapes are grown in America, consider that in 1956 out of 25,386 carlot rail shipments of grapes, 25,070 were from California. Thompson (7077 cars) and Emperor (5878) were the leading table varieties; Zinfandel (1627) and Alicante (1450), the leading black juice grapes; and Muscat (1956), the leading white juice variety.

Sitting in the lobby of an Amsterdam hotel in Holland, reading a German newspaper, there comes to attention an article on peaches in Switzerland which tells about the Redhaven and J. H. Hale varieties from the U.S.A. as being especially successful and preferred by the trade. So horticulture re-emphasizes its international aspects.

In spite of all the attempts by modern science to develop chemical thinning of peaches, the experimental station at Harrow, Ontario, suggests that mechanical thinning of peaches is still quite effective: 1) switching in bloom with a bundle of dogwood or peach twigs; 2) spraying with water at 500 pounds per square inch with a gun and No. 12 disk; and 3) clubbing with 18 inches of 1/4-inch rubber steam hose on the end of a hoe handle.

Plant patent 2921409 describes a method of improving the palatability of fruits and vegetables by applying certain synthetic sweetening agents to leaves, stems, and roots, particularly saccharin and sodium cyclohexyl sulfamate. The materials are said to be translocated directly without change in the plant.

Says one western correspondent regarding "pear decline" in California, "Unless something is done quickly, the Bartlett pear industry on the West Coast is seriously threatened. A man cannot lose 10% of his trees each year and stay in business."

—H.B.T.

Coming Next Month

- Ohio's Richards Brothers Irrigate for Premium Peaches
- The Story of National Apple Institute
- Safety in Spraying

AMERICAN FRUIT GROWER

Stainless Steel sprayers save fruit grower \$1875 a year



500-gallon "Speed Sprayer" by John Bean Division, Food Machinery & Chemical Corp., used by the Adams Packing Association.

This mark tells you
a product is made of
modern, dependable Steel.



Mr. B. T. Reynolds of Adams Packing Association, Auburndale, Florida, says, "We rely on our Stainless Steel spray tanks. Because they're so corrosion-resistant, there's no scale to plug up the nozzles. So, we get the job done on schedule without any wasted time and labor. And we expect these tanks to last indefinitely."

Before Adams Packing switched to Stainless Steel fruit sprayers, they had to clean their spraying equipment each time they used it. And, the old sprayers required a \$135 maintenance job every three years. Stainless Steel tanks have eliminated both maintenance expenses. With Stainless Steel, they just rinse the sprayers out at the end of the spraying season.

Mr. Reynolds estimates that they save a dollar a day labor cost for cleaning during the spraying season. Figuring 15 tanks, an 80-day spraying season, plus a share of the major maintenance cost, the Stainless Steel tanks save about \$1875 in labor and maintenance each year.

United States Steel Corporation • American Steel & Wire Division • National Tube Division • Columbia-Geneva Steel Division • Tennessee Coal & Iron Division • United States Steel Supply Division • United States Steel Export Company

For more information about Stainless Steel tanks, send the coupon.

United States Steel Corporation
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Please send me a copy of your free booklet, "Stainless Steel Tanks for All Farm Chemicals."

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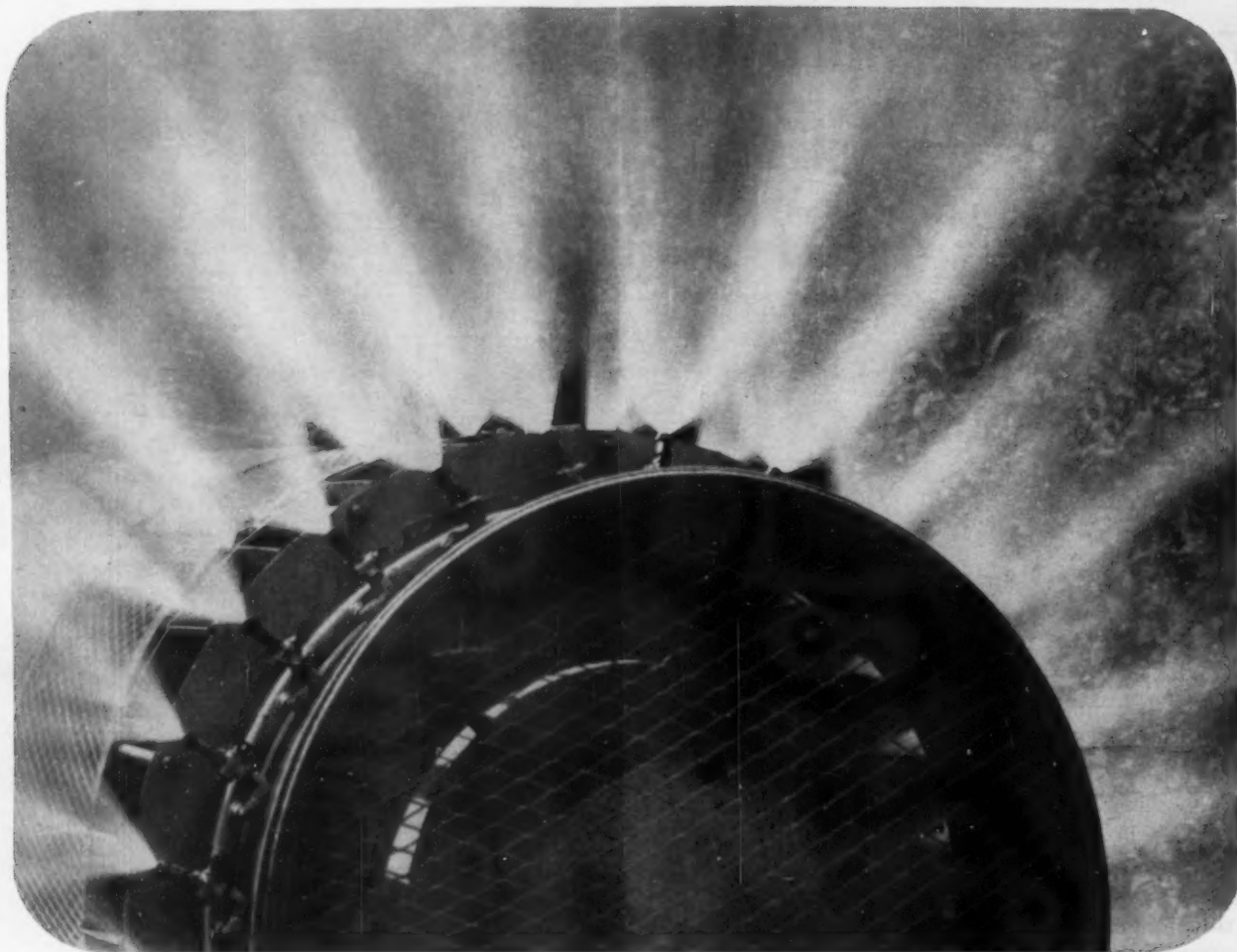
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Stainless Steel

CAPTAN SPRAYS GIVE YOU



3-WAY SCAB CONTROL *plus*

Pre-bloom to harvest, nothing beats captan fungicide for apple scab and summer disease control.

The reason is simple. Applied before an infection period, captan protects fruit and foliage from infection. Applied shortly after infection occurs, it kills the scab fungus. And applied when scab spots first appear, it inactivates the spots and prevents further infection. This three-way action is one reason why captan is the most widely used apple fungicide.

But there is a big added plus. Growers who have used Stauffer Captan 50-W all season long find that scab control becomes easier each succeeding year because less scab overwinters. As a result, many growers get good control with as little

as one pound of captan per hundred gallons of water.

What's more, Stauffer Captan and MAGNETIC® "70" Sulfur Paste (or Stauffer MAGNETIC "95" Wettable Sulfur) team up to control scab and powdery mildew in pre-bloom and blossom sprays on apples. The same combination is safe and effective in blossom, petal fall, shuck and cover sprays on peaches.

Nothing beats Stauffer Captan, the all-season quality fungicide that pays off big at harvest . . . on apples, peaches, cherries, grapes, pears, plums and berries.

See your dealer. Write for new pamphlet. Stauffer Chemical Company, 380 Madison Avenue, New York 17, New York.



